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Adobe Photoshop

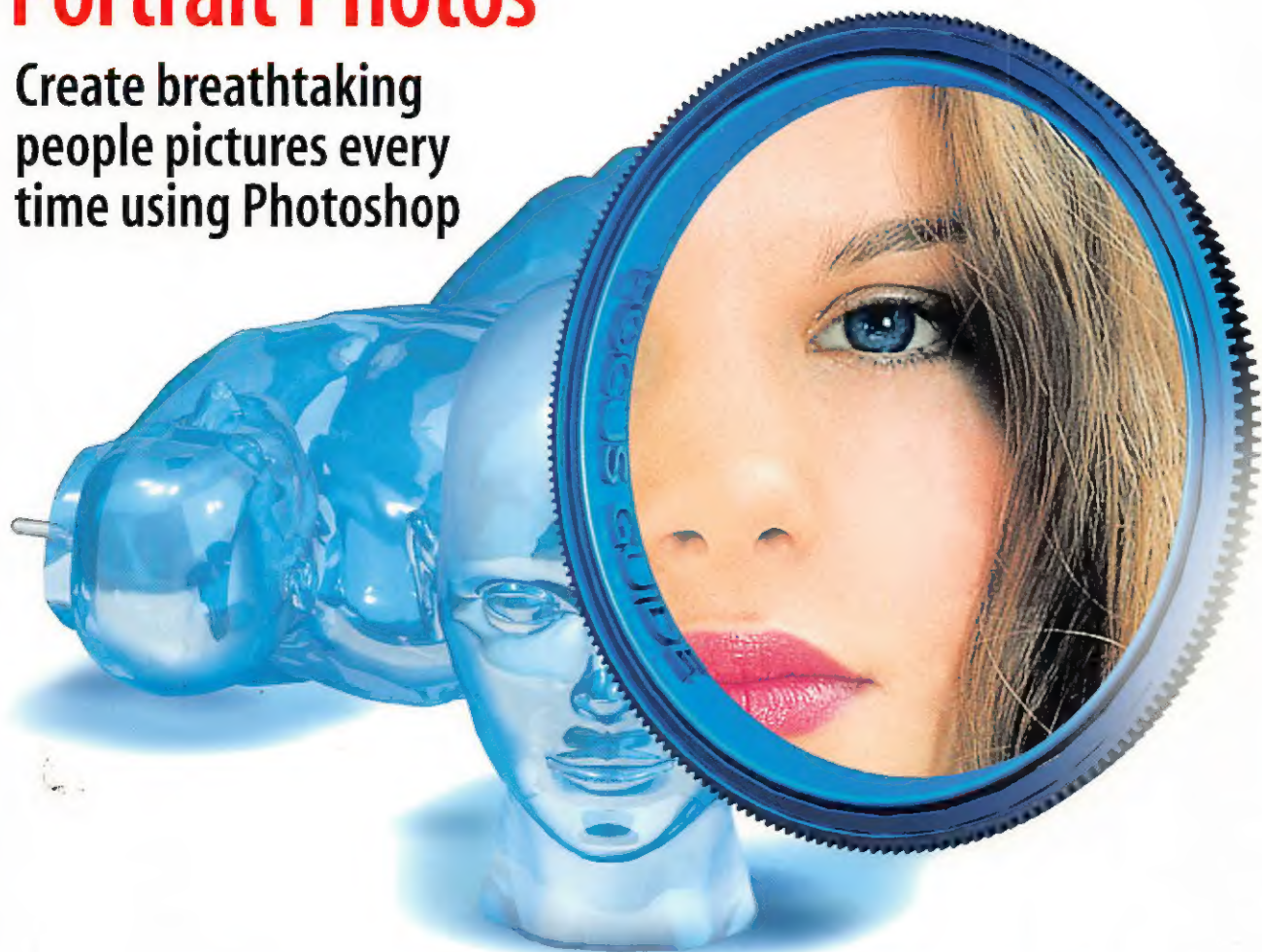
Perfecting Portrait Photos

Create breathtaking
people pictures every
time using Photoshop



FocusGuide

From the makers of **Computer Arts**



**132 pages of easy-to-follow tutorials and expert advice
to help develop your Adobe Photoshop skills**

Put on a happy face...

Disappointed with your people pictures? Photoshop will help you do justice to your subjects – or even improve on nature

Portraits are the most difficult kind of photographs to take. It's not just the technical challenges, like getting the lighting right and the exposure spot-on. It isn't even the mysterious art of not catching people in mid-blink, grimace or sneeze. No, even if you get all this absolutely perfect – rare enough in itself – there's an even chance that your portrait subject just won't like the image you've captured. We all have our own self-image, which might deviate to a greater or lesser degree from reality, and the lens can be very unforgiving.

It's lucky, then, that Photoshop gives you everything you need to retouch, improve and enhance your people pictures – or give your subjects a digital makeover, if need be. In this Focus Guide, we'll show you how to fix the whole gamut of flaws, from technical problems with exposure or lighting all the way through to virtual cosmetic surgery. You'll learn how to give your subjects glowing skin and perfect hair, remove wrinkles, eye bags and other blemishes, restore lost detail and repair damage. We'll reveal how to enhance your shots using colour, lighting and other creative effects, and add those delicate nuances that can transform an image. To finish, we show you how you can give your subjects a stunning 'cover girl' look beyond even their own delusions.

To help you work your digital magic, this issue's CD includes over 60 minutes of expert video tutorials, plus a handy full utility for extending the dynamic range of your shots and correcting exposure problems. There are also 40 stock photos, and 80 edges and frames to add that finishing touch. Perfection is closer than ever!





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Finding your way

Our handy icons hold the key to a wealth of additional information. Here's what they all mean...

With so much to tell you about how you can create perfect portraits with Photoshop, it's hard to find room for all the information we want to pack in. That's why you'll find the special icons that occupy the margins on each page so useful.

As you leaf through the pages, you'll find a range of eye-catching symbols, each of which indicates an extra nugget of knowledge. The icons enable you to identify exactly what kind of information you're dealing with – for a guide to icon

categories, see below. These handy hints and tips are always relevant to the topic that's being discussed, and will help you develop your Photoshop skills that little bit faster.

Our writers are always experienced Photoshop experts who regularly contribute to our sister magazines, such as *Computer Arts*, *Computer Arts Projects* and *Digital Camera Magazine*. So you can rest assured that all the information they provide is both authoritative and thoroughly tried and tested.



On your CD-ROM

Tutorial files, trial software and more besides is included on your CD-ROM. Every now and then, we remind you of this by flagging-up the disc icon and listing the relevant disc contents.



Take note

You'll find a number of these nuggets of knowledge scattered throughout the Guide. They're crammed with useful information that complements the main text perfectly.



Top tips

This indicates an expert tip. Anything sheltered beneath this icon is guaranteed to reveal a useful tip, or advice about Photoshop's range of tools, options and features.



Watch out!

The 'skull and crossbones' sign means proceed with caution. You'll find some important points outlined below this icon, which you should certainly take seriously.



Further information

We'd like to tell you absolutely everything, but there's just not enough space. Instead we refer you to other useful resources, such as websites and specialist books for further reading.



Links

When we refer to a website, we may pull out the web address in the sidebar to make it easier for you to read and remember.



Shortcuts

Carrying out common tasks again and again can get a little tedious. Our handy shortcuts show you how to perform these tasks with a few deft key-presses, saving you lots of time and effort.

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Chapter 1

ENHANCING AND TOUCHING-UP THE SKIN

In this chapter...

- ☐ Take a closer look at the tools you'll be using for 'cosmetic surgery' in Photoshop
- ☐ Remove wrinkles using the Healing Brush
- ☐ Reduce freckles with the Patch Tool
- ☐ Restore skin tones in overexposed images

They say the camera never lies, but when it comes to taking portraits it can often fail to do our subjects justice. Fortunately, we can reclaim their true appearance using Photoshop

Ask someone if they're happy with how they appear in their passport photograph, or the mugshot on their work ID card, and you can almost guarantee that the answer will be 'No!', followed by an embarrassed refusal to let you see the photo in question. It's most likely that in their passport photo they've been captured on camera with their eyes half shut, or staring with their eyes wide open in anticipation of the next burst of flash. The close proximity of the flash means they may look flat-lit, their healthy tan reduced to a ghostly pallor. The flash may also have caused the patches of sweat on their skin to

be overexposed, obliterating any detail in those sections of the image.

Passport to perfection

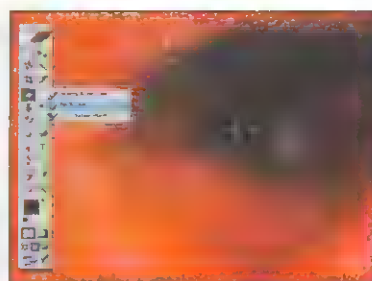
Work ID cards can just as bad. They will usually have been taken by someone who has no concept of framing a shot, making us look like a hobbit as we're left peeking up from the bottom half of the picture. They're often shot on a digital camera that has the colour balance set to make us look a seasick shade of green. If you ask to see anyone's ID photo, the answer will be another resounding 'No!', for some or all of the above reasons. Fortunately, we now have access to the kind of



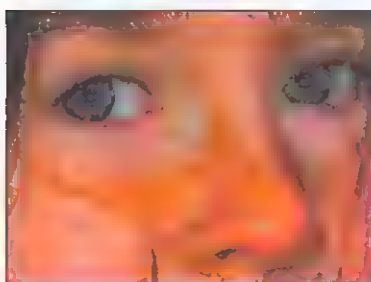
Page 12 Take a closer look at pixels, the building blocks of your digital portraits



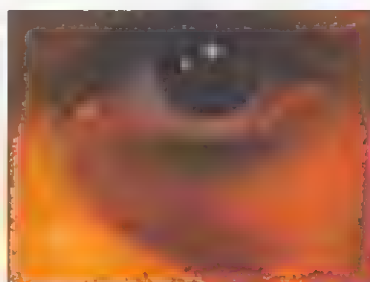
Page 13 The Clone Stamp Tool – a vital weapon in the battle against blemishes



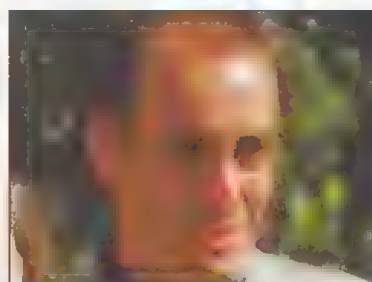
Page 16 Spending too long staring at your monitor? Say goodbye to eye bags!



Page 17 Use the Replace Color command to bring freckles under control



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hardware and software, in the shape of Photoshop, that can overcome just about any portrait problem. We can reclaim that healthy skin colour digitally, and even go one step further and give ourselves a glowing tan, while hotspots caused by flash can be brought under control using dodge techniques. With the help of Photoshop, the embarrassing passport photo can finally become a thing of the past.

The morning after...

There are many reasons why we might want to tinker with the pixels that make up our portraits. With digital cameras proliferating like

rabbits, people are taking more shots than ever before. It's getting easier to put those shots online using packages such as iPhoto, so you can still be nursing that hangover when your friend calls to say that the shots of you sitting bleary-eyed and drooling into a pint glass are now online for the world to see. These digital portraits are hard to reconcile with the self-image we've built up over the years. In our mind's eye we're slightly taller, our paunch is a six-pack and we have no problems with wrinkles. Thanks to Photoshop we can tame those unflattering portraits, and bring them into line with how we think we should look!

Pixel pushing

Before we get started, let's take a look at some of the tools we'll use to improve our portraits



Zoom zoom

To get up close and personal with those pixels, select the Zoom tool [Z] from the toolbox. Keep on clicking the tool over the work area until the plus sign disappears from the magnifying glass icon. You're now zoomed in at 1,600%!

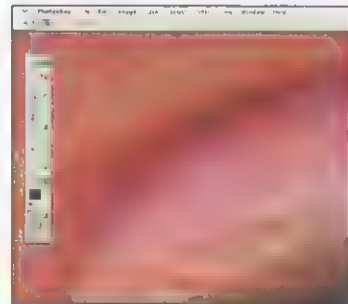
They say that beauty is only skin deep. This may be true, but our skin is the first feature that people will notice when they meet us. As a nation we spend millions of pounds every year on cosmetic products to help improve the appearance of our skin, and this quest for the perfect complexion goes on throughout our lives. Teenagers wage war on oily skin to avoid embarrassing spots that they fear will stop them getting a girlfriend/boyfriend. As we get older, we pamper our skin with moisturising lotions to keep it young

and attractive, in an attempt to keep hold of our boyfriend/girlfriend! Increasingly, people are resorting to more drastic measures to stay young looking. The chemical peel process strips off a layer of skin to reveal a younger, fresher-looking layer beneath. But before you fork out a fortune on cosmetic surgery, let's consider the digital alternatives. In Photoshop beauty is only pixel-deep. There are many tools available to control those pixels, but the basic tools of our trade are the Clone Stamp Tool and the Healing Brush.

A CLOSER LOOK

Get to grips with the building blocks of any Photoshop image

Portraits, like all digital images, are made up of pixels. Select the Zoom Tool [Z], and zoom in to an image at full magnification to take a closer look at its pixels. This is the digital battlefield where we will wage the war against unflattering portraits. Any image editing we perform involves changing the look or position of these humble squares of colour. Because Photoshop allows us to manipulate the image at the pixel level, we can alter the look of a portrait in a photo-realistic manner. Photoshop offers us a variety of terrific tools that enable us to move, copy, colourise and distort our portraits at the pixel level.

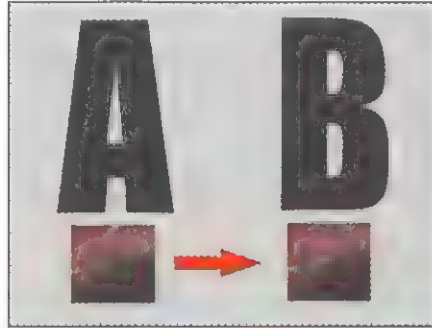


Photoshop boasts a variety of tools with which you can change the look and position of a portrait's pixels

The Clone Stamp Tool

Unhappy with a particular pile of pixels? Send in the Clone Stamp to get them under control

There are many great tools in Photoshop's arsenal, and two of the main weapons in the battle to create the perfect portrait are the Clone Stamp Tool [S] and the Healing Brush Tool [J]. Both enable you to remove a selection of unwanted pixels by replacing them with alternative pixels from another part of the image. Although they're closely related, and essentially do the same job, the tools work in slightly different ways. We'll kick off with a quick look at the Clone Stamp, which is the older but less sophisticated of



The no-frills Clone Stamp Tool moves selected pixels from A to B. This is fine if you don't require very much subtlety

the two tools. Between them, these tools can make important but subtle improvements to your portraits.



Interactive

The Clone Stamp Tool is brush-based. You can alter the size of the tool interactively by pressing the [and] bracket keys to shrink or enlarge the brush tip while you're using the tool.

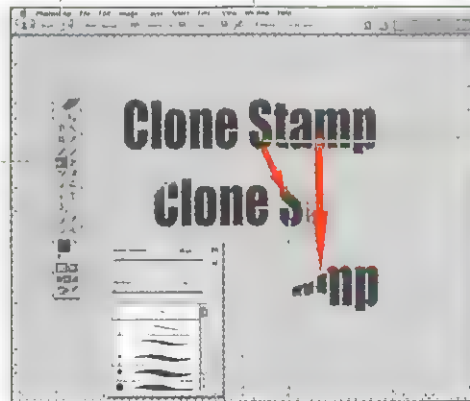
This saves you from interrupting your workflow by using the Preset picker to change the brush size.

USING THE CLONE STAMP TOOL

The Clone Stamp Tool is brush based. You can make it work more subtly by using a soft-edged brush from the preset picker.

The Clone Stamp shares this section of the toolbox with the rarely-required Pattern Stamp Tool.

Right-click with the mouse to bring up the context menu. You can then change the brush size while you're using the tool.



Untick Aligned in the options bar if you want the tool to keep cloning from the initial area of sampled pixels.

To Clone a section of pixels, place the cursor over them and press [Alt] to take a sample.

Spray the sampled pixels from the sampled section into another section of the image by holding down your mouse button.

The Healing Brush

For more subtle portrait manipulation, you need to reach for the Healing Brush Tool



New Tool

In Photoshop CS the Healing Brush has a new cousin, the Color Replacement Tool. We'll look at this tool later in the book, as well as ways to replicate its effect in Photoshop 7.

The Healing Brush Tool is far more powerful than the Clone Stamp Tool. We'll be calling on the services of this tool regularly throughout this book, to tackle a wide variety of portrait improvement operations. But why is it so important? Like the Clone Stamp, the Healing Brush enables you to transplant pixels from one part of an image to another. But the huge advantage that the Healing Brush has over its Clone Stamp cousin is the fact that, once it has transplanted the sampled pixels from one

location, it cleverly merges them with surrounding pixels in the new location. This helps the cloned pixels to blend invisibly with their new neighbours, allowing you to create a seamless skin graft that will be unnoticeable to viewers of the edited image. The Healing Brush is perfect for hiding imperfections, wrinkles and other unwanted features. This makes it the tool of choice for art editors who need to touch up a model's complexion to create the perfect cover girl portrait for a glossy magazine.

A CLOSER LOOK

Used properly, the Healing Brush leaves no traces of its activity

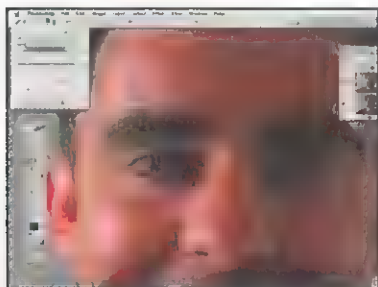
Skin isn't smooth and featureless when viewed up close in Photoshop. It has tiny pores which can become clogged, adding more detail to the texture of the skin. This makes skin tricky to edit, as tools such as the Clone Stamp can leave tell-tale marks where the new pixels overlap the ones they've replaced. When removing unwanted elements from skin you want to do so invisibly, while preserving natural details such as pores. As we can see in this image, the Healing Brush is perfect for digital skin grafts. A clear section of sampled skin grafts perfectly over an unwanted spot, hiding the offending blemish but preserving the natural texture of the skin.



The Healing Brush erases unwanted spots in a click, and merges the repaired area perfectly

Wrinkle removal

Call them laughter lines if you want, but we can still get rid of them with Photoshop!

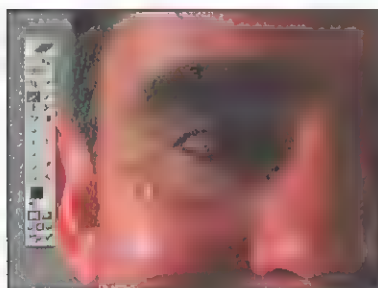


It could be argued that wrinkles add character to a face; some people call them laughter lines, while others use the less complimentary term 'crow's feet'. Wrinkles such as these can take decades to acquire, but they can be removed in a short time (from your photographs at least!) by using the Healing Brush Tool.



Wrinkle.jpg

Follow our walkthrough and practise removing the wrinkles from the subject in our source photo from the CD.



Select the Healing Brush Tool from the toolbox. Go to the Brush Preset picker and choose an appropriately-small brush for delicate work around the eyes. Hold down the [Alt] key and click to sample some pixels from the smooth skin on the subject's left-hand cheek. Spray these pixels to follow the lower curve under the eye. As you spray, the sample pixels will begin to hide those wrinkles.

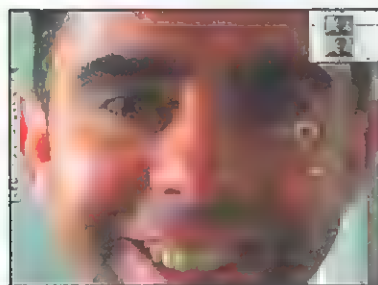


At first the sampled pixels will look less than subtle as you spray them into their new location. It's only when you stop spraying that the Healing Brush merges the sampled pixels with the pixels surrounding them. You won't eradicate all the wrinkles in one spray. Take several samples, and adjust the brush size if necessary. Try and maintain the line where the cheek meets the eye.



Duplicate layer

Before beginning a digital makeover, duplicate your layer. Working on a copy allows you to quickly retrace your steps if things go awry. The untouched original layer can also be a useful source of unedited pixels.



The lighting in this shot means that the skin tone and colour is darker on the right-hand side of the image. Make sure you sample similarly-coloured pixels to hide the wrinkles in this section. Tick Aligned in the tool options bar to make sure that the sampled area moves as the brush moves. This will help to add a realistic variety of texture detail to the healed area.

Removing eye bags

Spent too many late nights watching TV?
Let's deflate those unsightly eye bags!



Eye Bags.jpg

Follow our instructions in the box below, and practise patching out unwanted eye bags using the image on your CD.

Some people might think that it's rather vain to digitally alter details on a portrait, but sometimes the camera can't show us at our best, and needs a helping hand from Photoshop. If you're sending a portrait to a dating agency, or applying for a new job that requires a photo to be attached to your CV, you'll want to present yourself as looking at your best. A badly-lit photo can draw the viewer's attention to normally unnoticeable features, such as eye bags. Eye bags are made up of fatty deposits in the

lower eyelid that cause the skin to swell up. These deposits cause dark shadows, especially if the subject is lit by an overhead light source. Eye bags are exaggerated still further as we age, because our skin loses its elasticity and muscle strength. This allows the fatty deposits to pull the eye out of shape. The effect can be exacerbated by unflattering lighting conditions, making the subject look older still. In such instances we can argue that the camera is, in fact, lying; fortunately Photoshop is on hand to reveal the truth.

EYE PATCH

Smooth out those eye bags using the Patch Tool

The Patch Tool is a close relation of the Healing Brush Tool, and has the same magical ability to merge the edge of the repaired area with the adjacent pixels to create a seamless blend. In a shot like this we need to remove the right-hand eye bag without affecting the line of the nose. Select the Patch Tool ([Shift]+[J]), and set Patch to Source in the tool options bar. Draw a lasso around the offending eye bag. Change the freehand lasso to a polygonal lasso by pressing [Alt]. Then drag the selection to a clear area of skin. The Patch Tool will grab this clear area, place it inside the patch selection and merge the two areas together to eradicate the eye bag.



The Patch Tool makes quick work of selecting and removing unsightly eye bags

Freckle reduction

We can reduce the intensity of freckles by using the Replace Color image adjustment



To protect your skin from the sun's rays, your body produces a pigment called melanin, which helps your skin absorb damaging ultraviolet light. Freckles are caused by the skin producing areas with higher concentrations of melanin, and are especially noticeable on pale-skinned people after fresh exposure to the sun. To get your freckles under control digitally, follow these steps.



Freckle.jpg

Follow our walkthrough and use our freckly source photo to practise your colour replacement skills.

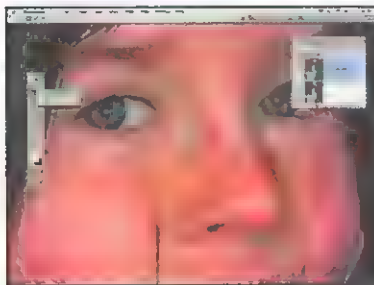


Duplicate the original layer by dragging its thumbnail on to the Create a new layer icon in the Layers palette. It's always a good idea to have an unedited layer to hand. Select the Freehand Lasso Tool (L) and select a soft Feather of 6 in the options bar. Draw around the area containing the freckles. Isolating the area stops us inadvertently adjusting colours in other areas of the image.

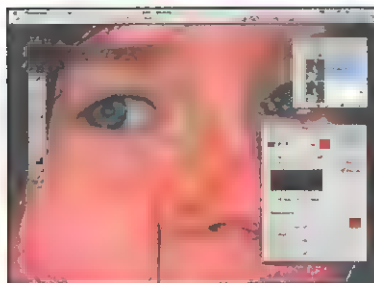


Add and Subtract

When you're choosing areas of colour to be replaced you can also use the Add and Subtract eyedroppers to fine-tune the selection, as well as adjusting the Fuzziness slider



To reduce the appearance of the freckles we're going to alter the pigment of the subject's skin. The trick is to adjust only the pigment that makes up the freckles themselves. Fortunately, Photoshop is up to the task. Go to Image > Adjustments > Replace Color. Use the Eyedropper to select the darkest freckle you can find. To add the others to the selection increase the Fuzziness slider.



As you increase the Fuzziness value, you'll see more freckles appearing in the preview window as white dots. The white areas will have their colour replaced, while the darker areas will remain the same. Once you've got a bumper crop, select the Lightness fader. Increase the Lightness value to a positive setting until the freckles have blended in with the skin.

Faking freckles

Master some advanced brush settings to create realistic-looking freckles



Freckleless.jpg

Try some advanced brush editing to create a realistic freckle effect. Practise your skills using the freckle-free source image from your CD.

We've seen that it's a relatively straightforward matter to reduce the appearance of freckles. The colour replacement technique used on the previous page to remove freckles is a very useful skill to master. It can also be used to improve your portraits by removing less desirable skin-related blemishes, such as age spots. Since they have a similar appearance to freckles they can be removed in the same way, to make the subject's skin look younger and healthier. Freckles, however, are considered an attractive feature by



Freckles are associated with youthful skin and hot summer days, so add a hint of freckles to help rejuvenate your subject's skin

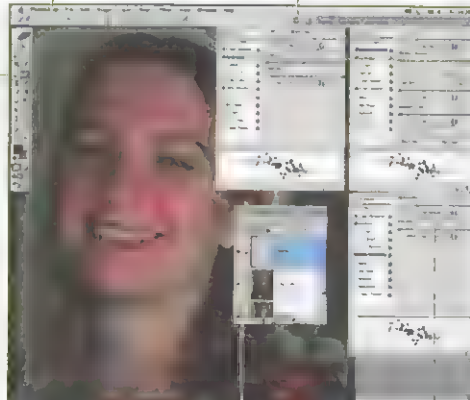
some people, so we'll look at ways to fake that freckly look using Photoshop's Brushes palette.

ADVANCED BRUSHWORK

For a variety of freckle size and spread, change the brush size using the Preset picker.

Choose the Brush Tool to spray freckles on to your subject. You'll need to do a lot of editing to get the freckle effect right.

Keep the effect subtle. Reduce the opacity of the whole layer, and set the blending mode to Vivid Light to allow the existing skin tones to affect the freckle colours.



Click on the Brushes palette icon to edit the brush attributes. This will help to create a more realistic freckle effect.

Activate the Scattering attribute editor. This will enable you to spread out the brush tip to create a spread of freckle-like dots.

Set attributes such as the Opacity Jitter to Pen Pressure if you have a tablet and pen. This adds random levels of transparency to the brush tip, to help you create a more convincing effect.

Goodbye black eye!

A little Photoshop first aid will ensure that an accident doesn't spoil your perfect portrait

Freckles and birthmarks are natural skin conditions, so we can choose to go with what nature gave us, or touch up our portraits to remove these sorts of harmless elements. However, accidents can happen, and they can leave unsightly marks on the skin. If you're having your photo taken for an ID card or a school portrait, then a black eye is the last thing you want people to see when you flash your ID card, or view when it's framed and on the mantelpiece. Boisterous youngsters are prone to falling out of trees or

off their bikes, so you might find that you up with an otherwise great shot that's marred by a whopping great black eye. One traditional cure for a black eye is to hold a raw lump of steak over the injury. Before lumps of cold meat caught on as a cure for bruising (the cool temperature of the meat can reduce the swelling by constricting the blood vessels), some doctors would even pop a leech on to the injury. Fortunately Photoshop can repair damaged skin without you having to resort to leeches or cold meat!



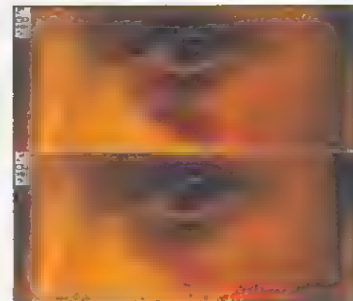
Shiner.jpg

Use the black eye source image on the CD to practise healing a nasty bruise.

MIX AND MATCH

Experiment to find the right tool for the job

As you work through this book, you'll become more experienced with the variety of tools that Photoshop provides to help you improve your portraits. Each portrait will vary, so feel free to experiment and combine the variety of tools we've looked at so far to get the job done. With this bruising black eye we tried using the Healing Brush to start with, but, as it merged the purple colour of the bruise with the cloned pixels, it wasn't particularly effective. We used the Patch Tool's freehand lasso to select the bruise, and selected a patch of healthy skin to replace it. We had to apply the patch several times until the repair was effective.



The Patch Tool had to be used several times to cover up this unsightly bruising

Overexposed skin

We can restore skin tones in burnt-out areas of an image with the help of the Magic Wand



Exposure.jpg

Tackle the glaring problem of over-exposed skin using the source image on your cover CD.



Sometimes what we think is a great photo can look disappointing when we view it later. The camera is not intelligent, and doesn't know which areas of the image are important. In this image there's a strong contrast between the shade in the bushes and the highlights on the subjects' faces.



Blending skin

Once you've selected the over-exposed selections with the Magic Wand, go to **Select > Grow**. This helps the over-exposed sections to blend with the correctly-exposed skin when you start to paint.



The camera has automatically opened the iris in an attempt to capture detail in the shadows, but as a result has burnt-out detail in the faces. Fortunately Photoshop can help us restore colour to these overexposed areas. We could try using the Burn Tool to restore colour, but there's not enough colour information left in the image's overexposed highlights for the tool to work with.



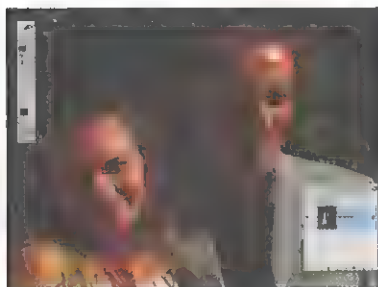
Select the Magic Wand Tool [W], and set it to a Tolerance of 22. Activate the Contiguous option and select a section of overexposed skin. Hold down [Shift] and click to add other areas of skin to the selection. Right-click ([Control]-click on a Mac) and choose Feather from the pop-up context menu. Set it to 3 to help the skin blend with the overexposed selections.



Select the Eyedropper Tool [I] and click outside the overexposed area to sample a selection of pink skin. Select a soft-edged brush [B] from the Brush Preset picker. Reduce the brush's opacity to 46% and spray the sampled colour into the selected highlights. Sample other areas of skin, and gently wash back some colour into the burnt-out areas. Add a little grain to give the skin some texture.

Pro Mist effect

Simulate the effect of this photographer's filter, and add an atmospheric glow to portraits

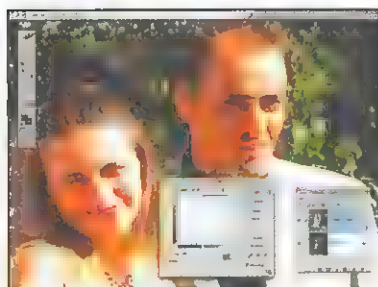


1 Sometimes professional photographers will add a Pro Mist filter to their lens to enhance the mood of a portrait. The Pro Mist filter softens the image, maintains contrast and creates an atmospheric glow from the image's highlights. This is a great technique for adding a touch of magic to your shot. It's sometimes employed in films and TV to flatter actors by hiding signs of ageing.



Pro Mist.jpg

Use our walkthrough tips and techniques to add a romantic glow to this wedding photo.

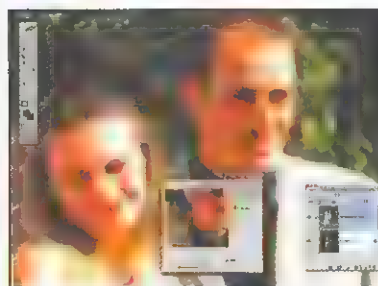


2 Duplicate your layer by dragging the thumbnail on to the Create a new layer icon in the Layers palette. Select the new layer, and from the main menu choose Image > Adjustments > Curves. Click on the curve and drag upwards until the Input channel is set to around 40 and the Output channel is set to 115. This increases the image's brightness levels dramatically. Click OK.

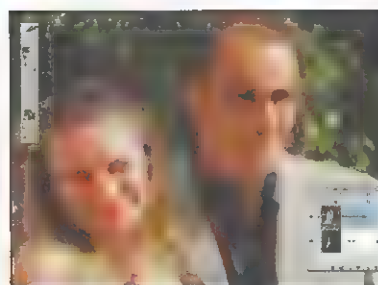


Highlights

The Pro Mist effect won't work on every portrait. You need an image with a bit of contrast between light and shade. Bright highlights on the skin will enable you to get the best Pro Mist effect.



3 Go to the main menu bar and choose Filter > Blur > Gaussian Blur. Select a high blur value of around 4 pixels. Don't worry about the blur being too strong, as we're going to restore the image's detail in the next step. We're only interested in the way the blur filter affects the image's highlights. When you're happy with the blur click OK.



4 Blend the two layers to create a glow from the image's highlights. Change the top layer's blending mode to Screen, so that more details and texture show through from the original layer beneath. Screen mode still preserves the blurred highlights. Reduce the opacity of the blurred layer, so that you get a balance between the blurred, glowing highlights and the detail in the original layer.

Chapter 2

COSMETIC SURGERY WITH PHOTOSHOP

Digital nose jobs and lip enhancements aren't the preserve of magazine cover models, so let's use Photoshop's powerful toolset to improve the facial features of our portrait subjects

Very few of us are completely happy with the way we look, and we'd probably jump at the chance to change certain features if it was quick, painless and inexpensive. Personally I'd like a smaller nose and less protruding ears, and could do without the speckles of grey that are starting to overrun my dark brown head of hair.

Media hype

We're exposed to the 'body beautiful' in every aspect of the media. Magazines and TV adverts present us with beautifully-shot and carefully-lit portraits designed to make already good-looking people

look even better, and many magazine covers feature an attractive smiling woman. No wonder we think twice about our appearance when exposed to such a high concentration of beautiful people. But should we believe everything we see? Many of the images we're being exposed to have been digitally manipulated to improve the look of the model. As we've seen in Chapter 1, spots and blemishes can be erased with a couple of mouse clicks.

Portrait improvement is nothing new. As artists and sculptors have demonstrated over the centuries we've always been preoccupied with bringing out the best in our subjects.



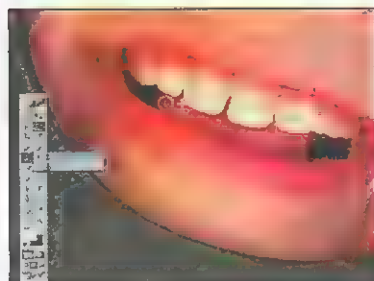
Page 24 A digital nose job is quick and painless in Photoshop



Page 26 Carve out chiselled cheekbones to add definition to your subject



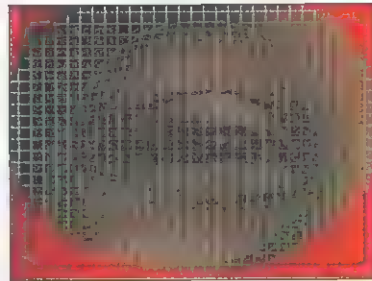
Page 27 Ear reduction made easy with the Free Transform Tool



Page 28 Missing a tooth? Let Photoshop fill those gaps



Page 30 If your subject is looking the wrong way, regain their attention



Page 31 Enlarge a subject's eyes to create maximum impact

In those pre-digital days portrait painters would flatter their subjects by omitting their faults and exaggerating their good points. Traditional photographers would try and improve their portraits through careful lighting, and by using flattering filters like the Pro Mist filter (see page 21). Images were carefully exposed and touched-up during the development process using the same dodging and burning techniques that Photoshop mimics.

Digital or surgical?

Thanks to desktop image editing packages such as Photoshop, flattering subjects is now easier than

ever. The cult of the perfect body image is growing fast, and as well as having their image digitally fine-tuned in Photoshop, many models will take the extra step of having their features cosmetically enhanced to keep hold of their place on our magazine covers. Lip enhancements create fuller and more sensual lips, although like breast enhancements, these surgical procedures can lead to the grotesque rather than the attractive if they're taken to extremes. In this chapter we'll employ some digital techniques to bring out the best of our subjects' facial features, without them having to go under the knife.

The digital nose job

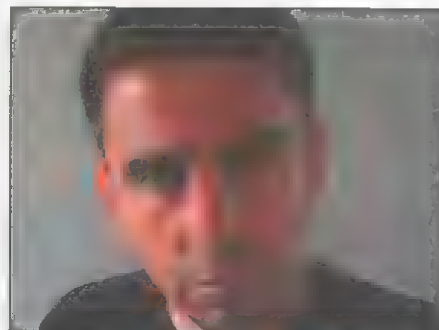
Reduce the size of your subject's nose to overcome perspectival distortion in portraits



Nose.mov

Follow our movie tutorial to see how to improve a portrait by copying, pasting, scaling and blending a nose.

The 'nose job', or rhinoplasty to give it its technical name, has been around for as long as plastic surgeons have wielded their scalpels. Nose jobs could be considered the 'bread and butter' procedure of the cosmetic surgeon, as there's a continual demand to reduce flared nostrils, and shrink the size of a large nose to bring it into proportion with the rest of the face. You can avoid the need for a digital nose job by photographing your subject carefully in the first place. An extreme close-up of your subject



When shooting a portrait make sure your subject doesn't tilt their head forward, as this weakens the chin and exaggerates the size of the nose

will do them no favours, as this artificially exaggerates the nose by distorting the whole face.

REDUCING NOSE SIZE

1 Edit > Paste the copied nose on to its own layer. Go to Edit > Transform > Scale to reduce the width of the nose on this layer.

2 Loosely draw round the nose with the Polygonal Lasso Tool to select it. Edit > Copy it.

3 Here's the 'Before' shot. The extreme close-up is making the large nose even more dominant in the frame.

4 Apply a layer mask to the new nose layer. With a soft brush, paint black to hide the edges of the new nose so it blends with the skin on the background layer.

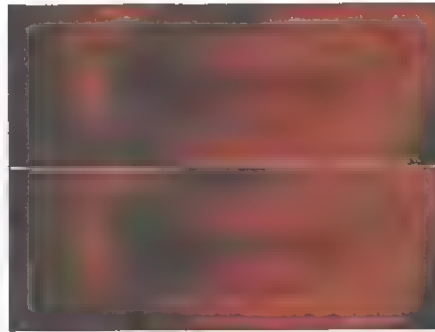
5 Create a new layer. Use the Clone Stamp Tool to hide the wide parts of the original nose with adjacent skin.

6 Here's the 'After' image. The scaled and blended nose reduces the portrait's perspectival distortion caused by the camera lens.

Lip enhancement

Create the type of voluptuous lips favoured by supermodels and Hollywood starlets

Physical features tend to follow fashions. In the days of the classical painter Rubens, for example, ladies with fuller figures were all the rage as the ideal subject for a painting. Today, being thin is in when it comes to the media's idea of the perfect body. However, while waif-like physiques might be considered the height of fashion, lips are getting larger. Fuller lips are in vogue, causing a surge in the demand for lip augmentation as girls adopt the pouting look of films stars such as Angelina Jolie. We can use



We can easily give our female subjects fuller, more sensual lips with some careful use of the Clone Stamp Tool

Photoshop's pixel pushing powers to give our photographic subject's lips a collagen-free boost.



Use All Layers

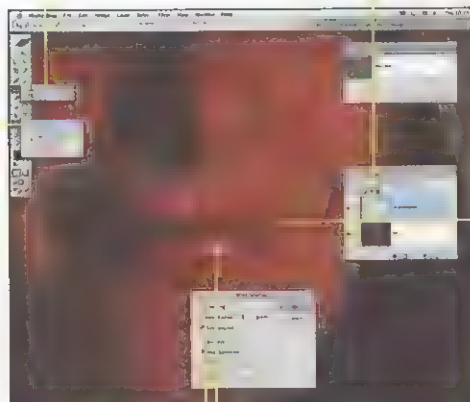
When cloning from the original layer to the lip enhancement layer, make sure you have the Use All Layers option ticked in the options bar. This will enable you to transfer existing pixels from the original layer on to the new layer using the Clone Stamp Tool.

CONSTRAINING THE CLONE STAMP TOOL

Use the Clone Stamp Tool to sample the original top lip's outline, and spray it against the path selection.

Draw a path with the Pen Tool to indicate the borders of the new, enlarged lips. This will 'fence in' the Clone Stamp Tool.

When the path is complete, make a selection with a feather of 1.5 pixels. This will help the edge of the new lips blend with the original image.



Press [Control]+[H] to hide the selection marquee while keeping it active. This helps you to see how successfully your cloning work is going

Clone the lip-enhancing pixels on to a new layer. You can then edit the layer, or delete it if things don't quite go to plan.

Clone some shiny lip detail from the lower lip to moisten the upper lip, and give it a fuller appearance.

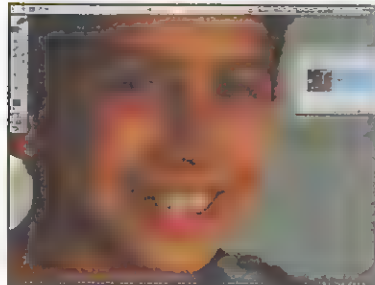
Perfect cheekbones

Add extra definition and character to a portrait by employing the services of the Liquify filter

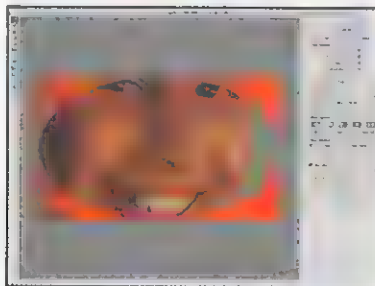


Cheeky.jpg

Use the Cheeky.jpg source image and practise enhancing your Liquify filter skills to raise our subject's cheekbones.



High cheekbones have always been considered attractive. Cheekbones can be enhanced by using make-up to highlight and emphasise existing bone structure. Men, too, can benefit from some attention to their cheekbones for that more masculine, chiselled look. We'll enhance this lad's cheekbones using the Liquify filter.

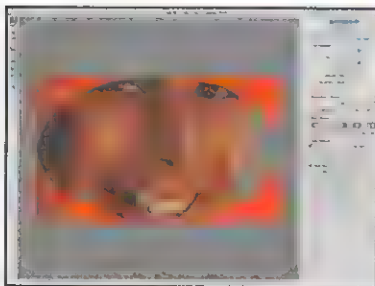


Use the Elliptical Marquee Tool to draw a selection around the area you're working on, so you can focus on it once you're in the Liquify filter's interface. Go to **Filter > Liquify** to activate the interface. Areas outside the selection will appear in red, and won't be affected by the tool. Select the **Forward Warp Tool [W]**. Adjust the **Brush Size** slider so that the brush only covers the cheek area.

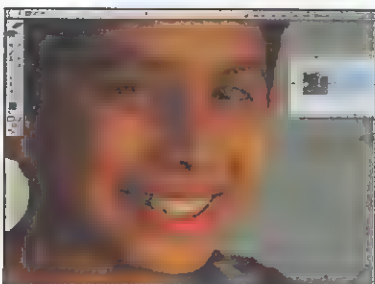


Under pressure

Since the Liquify filter is a brush-based tool, you'll benefit greatly from using a pressure-sensitive stylus. You can then intuitively drag the liquified pixels into new positions without having to manually adjust the **Brush Pressure** slider.



As you click the mouse and drag with the **Forward Warp Tool**, you pull pixels along in the same direction. The success of the **Warp** tool depends on not stretching the pixels too much so they become distorted. To keep things more subtle, reduce the **Brush Pressure** slider. You can then drag the pixels in gentle increments to create a higher, more defined cheekbone.



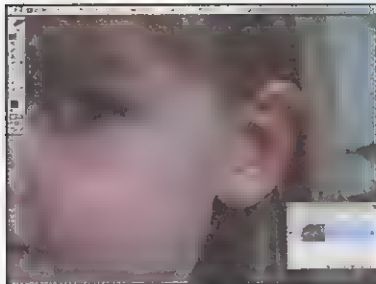
Change the **Brush Size** and **Brush Pressure** sliders often. This will help you fine-tune your image manipulation. Once you click **OK** the changes applied by the **Forward Warp Tool** will take effect. If the procedure has been successful, the viewer of the image shouldn't be able to tell that the **Liquify** filter has been used. Try and aim for subtle image manipulation, rather than going over the top.

Ear today, gone tomorrow

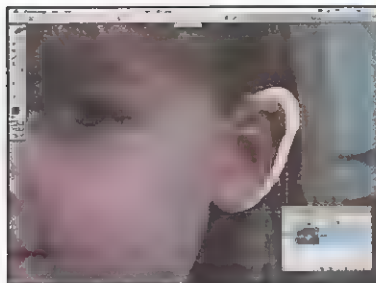
A digital nip and a tuck is all you need to reduce the size of your subject's ears



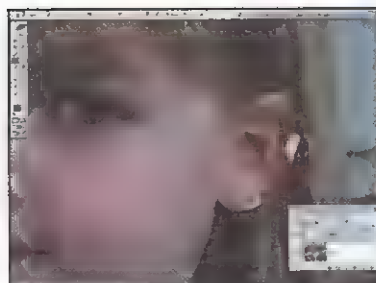
1 Ears are a feature that people can be quite sensitive about. My own ears have stuck out since childhood, although fortunately for me they're slightly pointy, which allowed the sci-fi loving youngster that I used to be to happily identify with Star Trek's Mr Spock. If you want to reduce the appearance of prominent ears on a portrait subject, give them the Photoshop treatment.



2 We could have used the Lasso Tool to draw around the ear, but for greater accuracy combined with speed we used the Magnetic Lasso Tool [L]. To complete the selection where the ear meets the head, hold down the [Alt] key to temporarily switch the Magnetic Lasso to the Polygonal Lasso.



3 Unlock the layer by double-clicking on its thumbnail in the Layers palette. Hit [Control]+[T] ([Command]+[T] on a Mac) to activate the Free Transform Tool. Now you can scale-down the ear by dragging in the handles that appear around the selected ear; a chequered transparent background will appear around the scaled-down area. Hit [Return] to complete the transformation.



4 You'll need to replace the pixel data lost during the transformation of the ear. Once the ear has been scaled down it will still be selected. Go to Select > Inverse to select the rest of the image and isolate the ear. Now you can use the Clone Stamp Tool to extend the hair and skin around the ear without accidentally replacing the pixels that make up the ear.



Ear.jpg

Use our source image to practise combining the Free Transform Tool with the Clone Stamp Tool, to reduce the size of the ear and replace missing pixels.



Context menu

When you invert the selection in step 4, you could avoid going to the main menu by right-clicking the mouse inside the selected area. This will bring up the pop-up context menu. You can choose the Inverse menu option from here, instead of using the main menu bar.

Digital dentistry

Use Photoshop's tools to coax a winning smile out of even the most gap-toothed youngster



Teeth.jpg

Practise your dental skills using this source image. You can create false teeth to fill in gaps, and clone out crooked existing teeth.

Thanks to Photoshop's wide range of tools there's no need to put up with teething problems in your cherished childhood portraits. There's a time in every child's life when their baby teeth are falling out to make way for their permanent set of gnashers. For a few months this can leave your little one a few teeth short of a full set, giving them a gap-toothed grin. If you want to spruce up junior's missing molars to impress the grandparents, then reach for that mouse. Using Photoshop to show older kids how good their



A gap-toothed smile can be quite engaging, but if you'd like your youngster to have a full set of teeth in their portrait, reach for Photoshop

teeth could look like might even encourage them to persist with annoying dental braces.

OPEN WIDE AND SAY 'AAH!'

Reduce the brush size and softness of the Clone Stamp Tool using the Preset picker.

Use the Magic Wand set to a tolerance of around 22 to select the main tooth. Edit > Copy it.

Use the Clone Stamp Tool [S] to hide parts of the copied tooth by replacing it with areas of gum and tongue.



Use the Free Transform Tool to rotate the copied tooth to align it correctly. Click outside the selection to activate the tool's rotate icon, and drag.

Duplicate the copied tooth as many times as you need. Transform, scale and move the teeth into position to restore a winning smile.

Edit > Paste the copied tooth on to a new layer and use the Move Tool [V] to close the gap between the original two front teeth.

Mirror image

Enhance your subject's (or your own) looks by creating a perfectly symmetrical face

Various psychological studies have shown that people with symmetrical faces are judged to be more attractive than people with less balanced, asymmetrical faces. Some studies even suggest that people with perfectly-balanced features are actually healthier and happier than those individuals with less balanced or unequal facial features; perhaps a well-balanced face equates with a well-balanced mind. This could mean that we're more likely to attract a partner if our face is perfectly symmetrical, as they will

subconsciously decide from our features that we're a more healthy and mentally well-balanced mate than our competitors. All this might give you food for thought if you're submitting a portrait to dating agencies to promote yourself to potential partners. While we wouldn't want to suggest that you falsely represent your looks, you can give yourself an edge by creating a perfectly symmetrical face from an existing portrait. Having got a date, of course, you'll have to win them over without the aid of Photoshop!



Symmetry.jpg

You can try out the symmetry technique on your own face, or use our example image.

FLIP THAT FACE

Create a perfectly symmetrical portrait in seconds

To create a symmetrical portrait, you'll need to make sure that the subject is looking directly at the camera; the technique won't work if their head is partially turned away from the lens. If they're tilting their neck, use the Edit > Rotate option to straighten their head so that their eyes are level. Use the Rectangular Marquee Tool to select half the face (the better half). Copy and paste the selection on to a new layer, then go to Edit > Transform > Flip Horizontal. Add a layer mask to the flipped layer, and brush in black to hide parts of the layer, so that only the face is mirrored, not the neck and hair.



Is the perfectly-symmetrical face, on the right, more attractive than the original? You decide

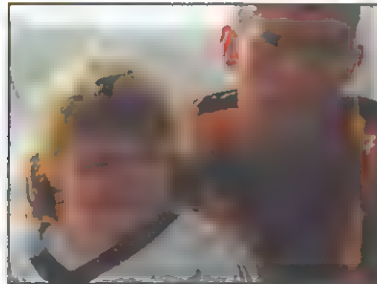
Adjusting eye line

If someone wasn't facing the camera when you took their picture, you can get their attention



Eyeline.jpg

Practise digitally re-aligning a subject's eye line. Follow our walkthrough using the same source image we used.

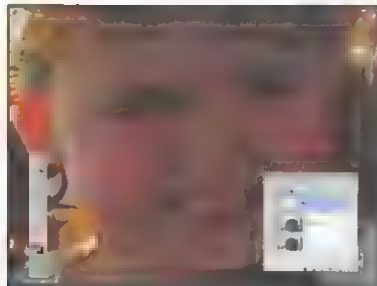


Taking a portrait of your family is a tricky job, especially when kids are involved. When one child smiles, another might stick out their tongue or pull a stupid face. Getting them all to look at the camera at the same time is also tricky. Fortunately, Photoshop is at hand to get all your family looking obediently at the lens.

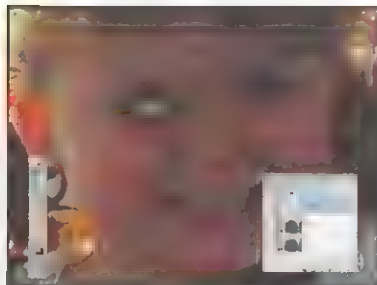


Cover your tracks

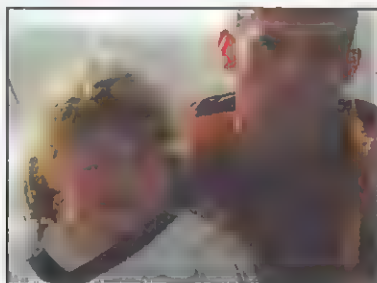
When manipulating an image, it's good practice to always duplicate the layer before you start work on it. If anything goes wrong you can always start again on the original layer.



Duplicate the layer. Draw an elliptical marquee to select the coloured part of the eye. To draw from the centre of the marquee hold down [Alt] as you draw. This will make it easier to select the cornea. Use the arrow keys to fine-tune the position of the selection. Edit > Copy then Edit > Paste the selection on to a new layer, and name it Cornea. Move the copied cornea out of the way.



Use the Pen Tool to select the visible section of the eyeball. Make sure that the Path option is selected in the options bar. When the selection is complete, right-click to turn it into an active selection. Use the Eyedropper to select the white of the eye, and fill the selection with the sampled foreground colour. Use the Dodge Tool to darken parts of the filled eye to make it less flat.



Move the cornea over the eye's white area. Tidy up the edges of the repositioned cornea using the Erase Tool set to a soft-edged brush. Reduce the opacity of the brush a little for more subtlety. Duplicate the cornea, and position it over the other eye. Select a small, soft brush and paint in new areas of white in the eye to make it appear that the child is looking in the right direction.

The eyes have it

The eyes are a key feature in a portrait, and you can give your subject's peepers more impact

There's an old saying: 'The eyes are the windows to the soul.' When we look at a portrait (or when we meet someone in person) we often look at the eyes first. They give us a clue about the personality of the person. Often a portrait is ruined when we catch a subject in mid-blink, or looking into sunlight and squinting. If we can't see the eyes clearly, we tend to view the shot as substandard. Japanese Manga cartoonists exaggerate the size of their characters' eyes to make them more expressive, and we can do a



Enhance your subject's eyes and give them more character by using the Bloat Tool, found in the Liquify filter's menu

similar thing to our portraits using some of the tools hidden in the Liquify filter's menu.



Reconstruct

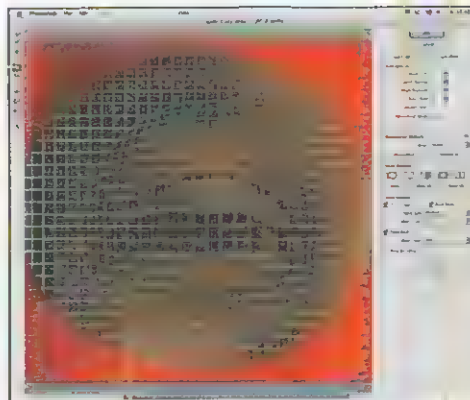
It's easy to go over the top when using filters, especially the Liquify filter. Fortunately it has a Reconstruct option, which you can click on to go step-by-step back through your edits. Alternatively use the Reconstruct Brush (Photoshop CS only) to restore selected parts of the image to their original state.

EYE ENHANCEMENT

Make the Brush Density larger. This will spread the brush's influence over a wider area, reducing the risk of the eye bulging at the centre.

Use the Bloat Tool [B] to increase the size of the eye. This causes pixels to move away from the centre of the brush.

Select the eye and the eyebrow with a marquee. Working on a larger area will help create a more effective, wide-eyed look.



Once you're happy with your manipulation click Save Mesh. You can then quickly load and apply the changes to the other eye.

To see the Bloat Tool in action more clearly, turn on the Show Mesh option.

If the default mesh blends with the colours in your source image, change the mesh colour to something that stands out.

Chapter 3

A TRIP TO THE PHOTOSHOP BEAUTY SALON

Hair can be a difficult thing to get right in a portrait, but with Photoshop we can experiment with different styles and colours until we get exactly the look we want

Previously in this Focus Guide we've looked at some fairly dramatic ways in which you can improve the facial features of your portrait subjects, such as removing eye bags and raising up cheekbones. These types of cosmetic alterations would require cosmetic surgery in real life, but they can be achieved without pain using a variety of Photoshop tools. However, you might decide that you'd prefer your photographs to provide a more honest portrayal of the subject. After all, you're running something of a risk if you turn up for a date knowing that the person you're meeting has only seen a digitally

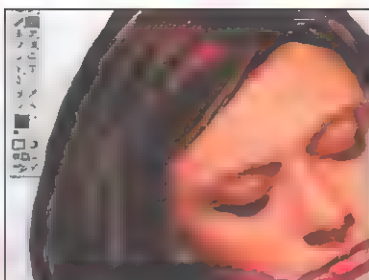
modified image of you that shows you with high cheekbones, no eye bags and gleaming white teeth!

Make-up artistry

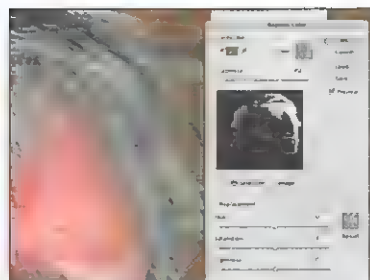
Whatever your feelings on the legitimacy of digital cosmetic surgery, you may be more open to the idea of highlighting and accentuating a person's existing features. This, after all, is what people do when they apply make-up, and no one considers it cheating if they look the better for it. Movie make-up artists need specialist skills to augment the beauty of their subjects so that they look their best on the big screen. But, no matter



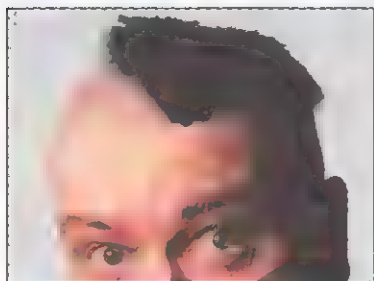
Page 34 Try out a few new colours as you digitally dye your subject's hair



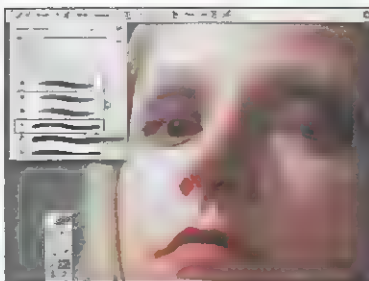
Page 35 Use selections and image adjustments to add some highlights



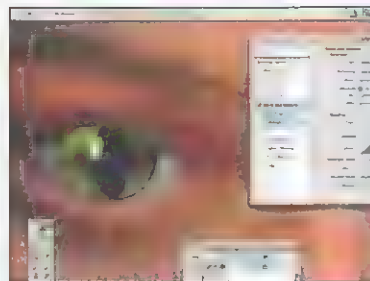
Page 36 Get rid of that grey in an instant with the help of Photoshop



Page 37 Banish baldness by giving your subject a whole new head of hair



Page 41 Enhance your portraits by applying some digital make-up



Page 43 Create the effect of coloured contact lenses for striking eyes

how good their skills, they depend on a variety of tools to help them work their magic.

Most of us don't have access to our own personal make-up artist and hair stylist, but we do have our own set of tools that enable us to improve our portraits. Think of the Photoshop toolbox as your digital make-up kit. We've already seen how the Healing Brush Tool can mimic the job of a make-up brush and a bit of concealer to hide unwanted spots and blemishes. We can also use Photoshop's tools to perform a whole host of other cosmetic improvement techniques to enhance the look of our portraits. A soft

brush and some layer blends, for example, can create the same effect as adding lip-gloss.

Look before you leap

As well as giving your portraits a makeover, Photoshop's tools enable you to safely experiment with potential new looks without forking out a fortune at the hairdresser's only to be disappointed when your other half decides they prefer blondes, not redheads. You could even see what you'd look like with a beard. Using Photoshop you can refine your new look, so that your next set of portraits won't need quite so much digital manipulation.

From blonde to brunette

Change your subject's hair colour digitally, using Photoshop's Variations window



Blonde.mov

Follow our training movie as we digitally re-colour our model's hair using the Variations window.

Hair is big business. Each year we collectively spend millions of pounds on hair-related products and trips to the salon or the barber. A good hairstyle can renew our confidence and boost our ego, but we've all experienced those 'bad hair days' when we don't want to leave the house. A hair dye may end up looking nothing like the colour promised on the packaging, and can take weeks to wash out. Thanks to Photoshop's colour adjustment tools, we can see what we would look like with a different hair colour without



What would you look like with a different hair colour? Photoshop enables you to experiment without reaching for the bleach

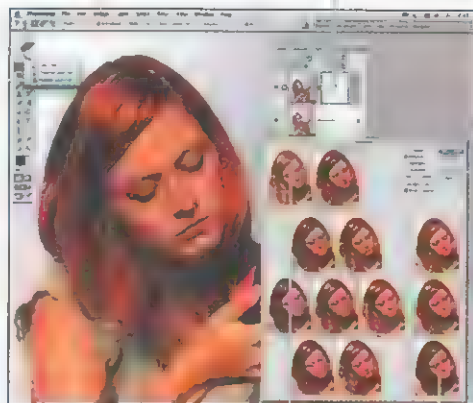
changing a hair on our head. This should help us make the bad hair day a thing of the past.

USING VARIATIONS

Go to the main menu and select **Image > Adjustments > Variations**.

Select the girl's hair using the **Magnetic Lasso Tool [L]**. Set it to a feather of 1 pixel in the options bar.

If you're unhappy with the direction your hair colour is taking, click on the **Original** image to restore the main image to that state.



Add a layer mask to the colour correction layer. Use a soft black brush to paint out sections of the coloured hair layer that don't work.

Specify the midtones to be adjusted. This helps maintain the existing highlights, giving a more natural look to the re-coloured hair.

Initially click on the **Darker** preview a couple of times. Then click on your preferred hair colour. We went for **More Red**.

Creating highlights

Using layer masks you can do more than just change the colour of someone's hair

Once you've used Image > Adjustments > Variations to change your subject's hair colour, you can restore streaks of the original hair colour to the image to create natural-looking highlights. As you can see on the previous page, our colourised hair exists on a layer placed above the original image. By adding a layer mask to the colourised layer we can hide selected sections of the red hair to reveal the blonde hair underneath. Layer masks are powerful tools, as they enable you to choose exactly

which areas of an image to reveal and which to hide. A black brush applied to the mask will hide the colourised hair, allowing you to see the blonde hair beneath. Layer masks are particularly useful because they're non-destructive. Applying a white brush to the mask will restore hidden pixels on the colourised layer. By pressing [X] you can swap the foreground and background colours in the toolbox to quickly change your brush from 'hide' to 'show' as you paint on the layer mask.



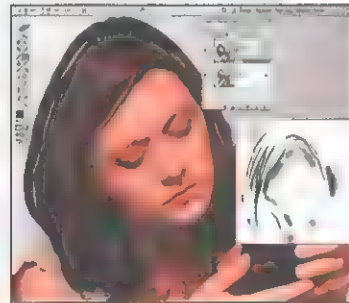
Opacity

As we mention elsewhere on this page, adding black to a mask hides the corresponding parts of a layer, and white makes the layer solid again. For a more subtle blend between the colourised layer and the layer beneath, change the opacity of the brush. This will make the paint grey, allowing you to see both layers.

ADDING HIGHLIGHTS

Use a layer mask to add highlights to your model's hair

By painting with a black brush on a layer mask we can hide strands of colourised hair, and reveal blonde hair from the layer below. To create realistic hair-like brushstrokes you'll need to change the width of the brush as you paint. The best way to do this is to use a stylus. You can then click on the Brushes Palette icon in the options bar and select the brush tip's Shape Dynamics section. Setting this to Pen Pressure enables you to increase and decrease the width of the brush interactively, so you can paint believable strands of hair. We've included a close-up of the layer mask in our screenshot to show you how the strokes affect the colourised layer.



Use a layer mask to blend sections of the original and the colourised layer to create natural-looking highlights

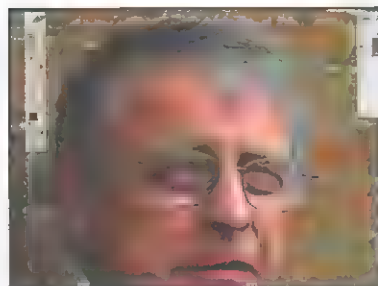
Fade that grey

Use Photoshop's Replace Color command to wash out that grey and roll back the years

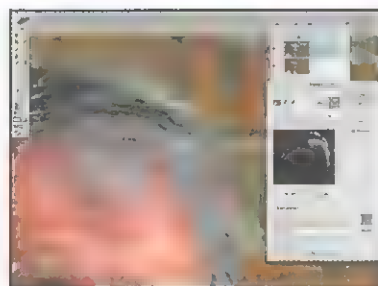


Beautiful blur

Use the Blur Tool to soften the edges of the re-coloured hair layer, to blend it more effectively with the background layer.



As with most Photoshop jobs, duplicate the layer you're editing. This allows you to keep an unedited copy in case things go wrong. You can also blend the two layers to make the changes more subtle by using a layer mask. Select the Magnetic Lasso Tool [L] and draw a rough selection around the subject's hair. This helps prevent you from inadvertently re-colouring other parts of the image.

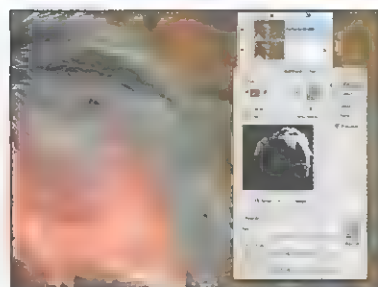


With the lasso selection still active, go to Image > Adjustments > Replace Color. Make sure the Selection button is activated, so that we limit the tool's work to the lasso selection. Take the Eyedropper Tool and click to sample a section of grey hair. You'll see all the hairs of that colour value appear in the black and white preview window of the Replace Color dialog box.



grey.jpg

If you don't have any grey hairs of your own to try this technique out on, use the image on the cover CD.



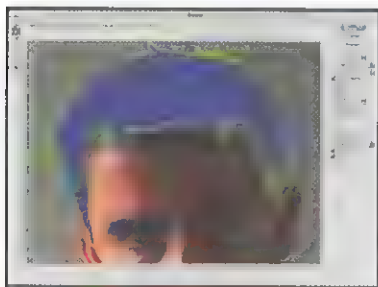
To select the entire range of grey hair, choose the Add to Sample eyedropper (the one with the + icon by it.) Click on the differing ranges of grey hair to add them to the selection. The Replace Color preview window will update to show the added range of hair. When you're happy that you've selected all the grey hairs, you're ready to adjust their colour.



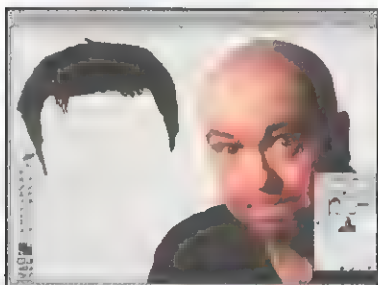
Drag the Lightness channel to the left to darken the hairs. You can still sample more hairs to add them to the selection, or, to deselect hairs, use the Subtract from Sample eyedropper. To alter the range of the selection adjust the Fuzziness value. Click OK. Tidy up the edges of the selection using a layer mask. Fine-tune the image by painting over any missed strands of grey using a small brush tip.

Hair transplant

Create a digital toupee by transplanting pixels of hair from one image to another



1 To isolate the donor hair, select the Extract filter. Select the Edge Highlighter [B] and draw around the hairline. Turn on Smart Highlighting. Draw over areas that the tool might have missed to catch all the strands of hair. Then choose the Fill Tool [G] and click in the area you want to keep. It will turn purple. Click Preview to see the effect of the filter. Use the Edge Touchup [T] tool to tidy the edges.



2 You could try and extract the hair from one image and place it directly on to the bald subject. However, it's easier to fashion a tailor-made toupee by cloning elements from one layer and adding them to another. Place the donor hair on one layer and use the Transform command (Edit > Transform > Scale) to make it loosely match the subject. Remove the white background with a Magic Wand.



3 Create a third layer called Transplant. This is where we'll place the cloned hair. Make sure this is the selected layer by clicking on its thumbnail. Select the Clone Stamp Tool [C] from the toolbox. Make sure that Use All Layers is selected in the options bar. Hold [Alt] and click to sample a section at the edge of the hair donor's layer. Spray the sampled hair on to the equivalent section of the bald layer.



4 Because the donor's hair won't be exactly the same size as the bald head, sample often to transplant the fringe, sideburns and so on to the appropriate position on the Transplant layer. This will enable you to build up a suitably-shaped toupee in stages. Change the brush size often to add variety to the transplanted hair. Add extra hairs to the fringe by resampling hairs from the Donor layer.



Photoshop 7 vs. CS

Both versions of Photoshop have the Extract filter, but Photoshop CS has a few extra tools that enable you to edit the green edge highlights once you've previewed the selection. The steps we've used in the walkthrough don't require these extra tools, so users of both versions can achieve the same results.



bald.jpg, donor.jpg

There is a cure for baldness! Try a hair transplant operation using our donor hair image and our bald source photo.

A close shave

Let Photoshop give you the ultimate haircut using the Pen Tool and the Clone Stamp



GoingBald.jpg

Use the source image on the CD to practise your hair removal techniques, or practise on a picture of yourself – if you're happy with the results, ask your barber to set his clippers to number one!

As we saw on the previous page, Photoshop's toolset can show you how your bald subject will look with hair. We can also use the package in the reverse way, to digitally remove hair from more hirsute individuals. To find out if you'd look as good as Bruce Willis, try this technique before heading for the barber's, as you might regret losing all that hair! Digital hair removal is a trickier operation, as you have to replace the pixels making up the hair with skin. It's worth tackling a challenging job like this,



Bald men are allegedly more virile. You can see if the look suits you without going near the barber's by digitally shaving off your hair

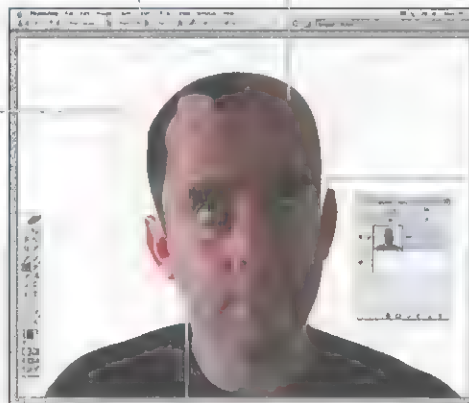
as you can apply the Photoshop skills that you learn to a variety of different projects in the future.

BALD IS BEAUTIFUL

Set the opacity of the Clone Stamp Tool to 40%, to subtly blend different skin samples together.

Invert the Pen selection. The Clone Stamp will only work up to the edge of the skull line.

Select the edge of the skull by drawing a path with the Pen Tool [P]. Delete the hair outside the skull selection.



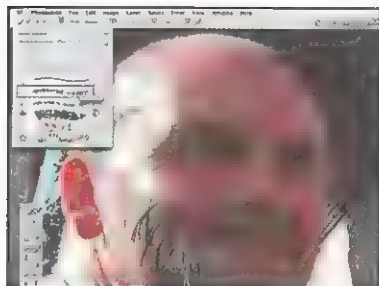
Clone and extend the shadowed pixels here to keep the skin tone realistic. Clone and extend the lighter skin on the other side of the head.

Clone and extend skin at the edge of the ear to make it join up with the head.

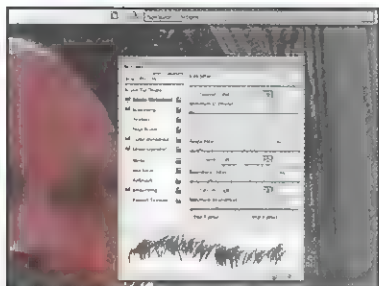
Use the Clone Stamp Tool to sample skin and spray it over existing hair.

Editing brushes

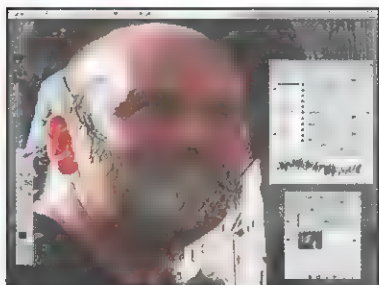
Spray on an instant beard by editing an existing Photoshop brush tip



1 You'll no doubt be familiar with the regular soft and hard Photoshop brush tips. Dig a little deeper and you can find and edit a brush that will create hairs at a stroke. Select the Brush Tool [B], and click on the Brush Preset picker. Scroll down until you find the Dune Grass brush tip. Create a new layer and test the brush tip. It creates hair shapes, but they're pointing in the wrong direction.



2 Select the test hairs (Select > All) and hit backspace to delete them. To make the brush strokes more beard-like, go to the Brushes palette in the options bar. You'll see that the brush has been heavily edited to create the existing grass-like brush strokes. In the preview window you can see the hair-like strands pointing upwards. Click on Shape Dynamics to see the editable attributes.



3 In the brush tip's Shape Dynamics section, tick Flip Y Jitter. This will make many of the hairs of our digital beard point downwards, so they look less like grass and more like hairs. Test the edited brush tip to see how the changes affect the strokes. Close the Brushes palette and delete the test hairs.



4 The brush mixes between the foreground and background colours in the toolbox. The default black and white colours will create a beard with speckles of grey. Change the brush to a much smaller size, and spray the edited hairs on to a separate layer to give your subject a beard. Change the brush size to adjust the hairs as you spray; use [to decrease the brush size and] to increase it.



Lovely labels

If you're unsure which brush you're looking at in the Brush Preset picker, hover your cursor over the brush preview for a second or so and a label will pop up identifying the brush. We're using Dune Grass as the basis for our beard hairs.



Size Jitter

To quickly and interactively change the size of the beard-creating brush tip, set the Size Jitter channel in the Brushes palette to Pen Pressure.

Digital depilation

Eyebrows out of control? Too scared to pluck? Let Photoshop tidy up those unruly hairs



Clone Stamp fix

Once you've erased sections of the eyebrow so that you can see through to the patch of clear skin on the layer beneath, you might still notice the odd hair-shaped hole caused by the Eraser Tool. Copy a selection of the original unedited eye, and use the Clone Stamp Tool to repair any noticeable damage around the eyelid

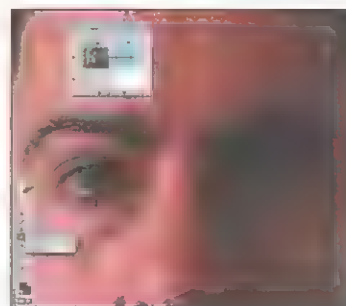
Being a bloke, the last thing I can bring myself to do is pluck my rather heavy eyebrows. The fear of going too far, and ending up with embarrassing, pencil-thin eyebrows has meant that I've allowed them to grow unchecked. I'm quite happy going to the barber's for a short back and sides, but my eyebrows have remained forbidden territory. However, as the opposite sex doesn't seem to find the 'furry caterpillar' look particularly attractive, I can test out a less hirsute look before letting anyone near me

with an eyebrow plucker. When removing eyebrow hair, it should be trimmed from below the brow (rather than from above) to increase the gap between the top of the eye and the bottom of eyebrow hair. This creates more space around the eye, and helps foster a more youthful-looking appearance. We can use Photoshop to trim eyebrows by adapting the technique used on the previous page. Instead of adding hairs with a hair-shaped brush, we can erase them with a hair-shaped Eraser.

ERASE THOSE EYEBROWS

Edit the Eraser Tool so that you can replace hair with skin

Normally the Eraser Tool goes about its business using a soft or hard circular-shaped brush, but we can use the techniques on the previous page to change the tool's brush tip to a more hair-shaped tip. This will enable you to remove the lower parts of the offending eyebrows, and give them a more defined and tidy shape. However, when you erase the eyebrow, you'll end up with holes in the face. To patch up these holes use the Rectangular Marquee Tool [M] to select a patch of clear skin above the eye. Place this on a layer below, and use the Move Tool to position it under the eyebrow to patch up the holes

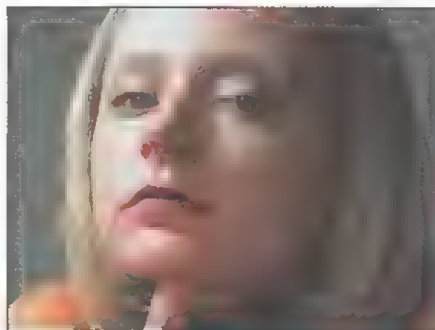


Compare the trimmed left eyebrow in this image with the untouched one on the right

Photoshop make-up

Experiment with different eye shadow colours and styles using the Brush Tool

We've seen elsewhere in this Focus Guide that Photoshop enables us to experiment with a new look by digitally manipulating and enhancing our existing portraits. We've all tried out alternative looks in the past that have turned out to be less flattering and suitable than we'd hoped, whether this has been a haircut from hell or, in the case of women, going out with eye shadow that made you look like a panda. Utilising Photoshop's layers and brushes like a digital make-up kit will spare the ladies any potential



Careful application of a coloured Photoshop brush and a layer blending mode can enhance and amplify our model's looks

embarrassment, as they can try out different colours and styles before applying make-up for real.



Makeup.jpg

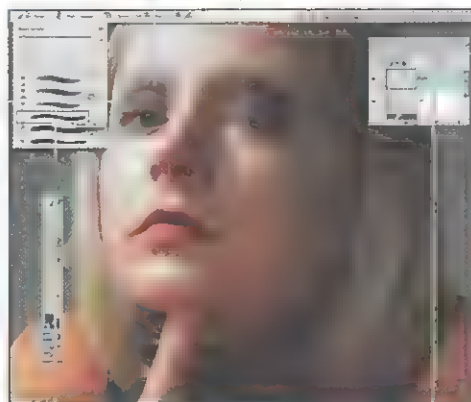
To create suitable eye shadow colours, get hold of a colour wheel. Colours at opposite sides of the wheel are complementary. A blue-coloured eye will be complemented by a warmer red or orange from the opposite side of the wheel. We chose a violet colour to go with the light green of our model's eyes.

DIGITAL MAKEOVER

Apply a lighter shade of colour to the upper lid. To get it to blend with the darker shade apply a Gaussian Blur filter.

Apply a darker version of the eye shadow colour to the section of the eye just below the eyebrow.

To give your eye shadow brush a smooth but realistic texture, select a spatter tip from the Brush Preset picker.



Blend the edge of the eye shadow with the skin by using the Erase Tool on an Opacity setting of 50%.

Set the eye shadow's layer blending mode to Multiply. This will apply the colour, while preserving skin texture and detail.

Less is more. Reduce the fill (or opacity) of the eye shadow layer to add a hint of colour.

Bright eyes

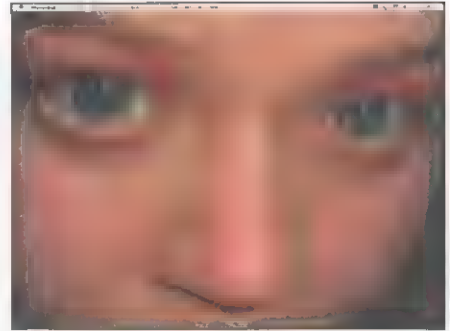
Put that sparkle back into your subject's eyes using paths and image adjustments



Paths

When you create a path using the Pen Tool, you don't need to go to the Paths palette to click on the Create new path icon. Simply go to the options bar, and click on the Paths icon. Then start drawing your path.

We use our eyes' expressive qualities to communicate. They're a valuable, but vulnerable asset. In this digital day and age we spend much of our time staring at screens, for both work and play. This means we don't blink as often as we should, which can make our eyes dry and lifeless. Smoky environments can diminish our eyes' healthy shine, and lead to dull or even bloodshot peepers, and if you're allergic to pollen you'll be used to the chore of resisting rubbing your itchy eyes until they're red. We can't always be



Tired and bloodshot eyes can spoil a portrait, but a few digital eyedrops from Photoshop will soon restore their natural, healthy appearance

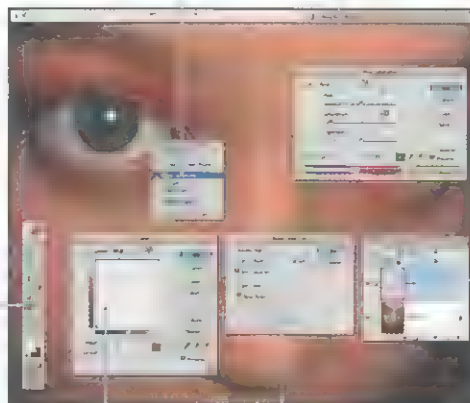
ready for a portrait that captures us at our best, but we can use Photoshop to restore vitality to our eyes.

ENHANCING EYE COLOUR

When your path is complete, right-click to bring up the pop-up context menu. Select **Make Selection**.

Use the Pen Tool (P) to draw a path around the whites (or off-whites) of the eye. Use the Direct Selection Tool to fine-tune the path.

To heighten the white level of the eye, go to **Image > Adjustments > Curves** and drag upwards here.



Go to **Image > Adjustments > Hue/Saturation**. Select **Reds**, and reduce the saturation to lose that bloodshot look.

On a separate layer spray white with a soft brush to enhance or add a white highlight. This gives the eye a moist, shiny appearance.

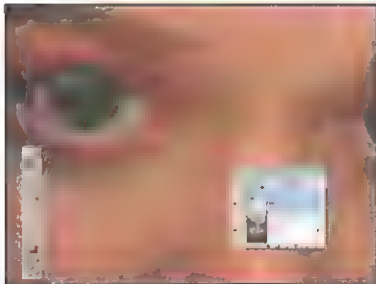
Feather the selection by a couple of pixels to make it blend more subtly with the rest of the eye.

Colour change

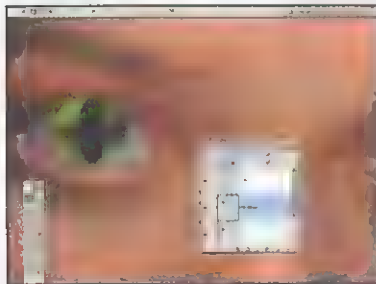
Mimic the effect of coloured 'fashion' contact lenses, without the expense



Contact lenses used to be worn purely to correct eyesight, as an alternative to glasses, but these days there's a whole range of fashion lenses available that can dramatically alter a person's appearance. You can recreate the effect of such lenses in Photoshop by designing and applying a cat's eye style lens.



1 Select the Elliptical Marquee Tool [M]. Create a new layer and draw a circle over the pupil and iris of the eye. Change the Foreground Color to green by clicking on the colour icon in the toolbox. Keep the background colour black. Go to Filter > Render > Clouds and fill the circular selection with a cloudy green. Name the layer Iris.



2 Create another layer called Pupil. Select the Elliptical Marquee Tool again. Set the Feather value to 3 pixels for a softer-edged selection. Create a more elliptical selection and fill it with black (Edit > Fill > Black). Duplicate the green Iris layer and place it above the original Iris layer. Set the Iris copy layer's blending mode to Color Dodge to enhance the green for a more striking effect.



3 Link the Iris and Pupil layers together and go to Layer > Merge Linked. Add a layer mask to the merged layer. Use a black brush on the mask to paint out the part of the lens that should be hidden under the eyelid. Spray on a soft white highlight to add life to the lens. Go to the Bevel and Emboss shortcut in the Layers palette to add a bit of depth to the edge of the fake lens.



Perfect Circle

You'll find it easier to select the iris with the Elliptical Marquee Tool by drawing from the centre of the pupil. Hold down [Alt] as you draw, and the tool will create the elliptical selection from this centre point.



Real lenses

Creative contact lenses such as 'cat's eyes' can be bought online if you want to try them out for real. Check out www.coloured-contact-lens.co.uk/ to see some really eye-catching lenses.

Chapter 4

RESHAPING THE BODY WITH PHOTOSHOP

in this chapter

- Mastering the tools for retouching the body
- Using the Liquify filter to reshape and transform bodies in your images
- The new Body Layer for retouching bodies
- Using the new Body Layer for retouching bodies

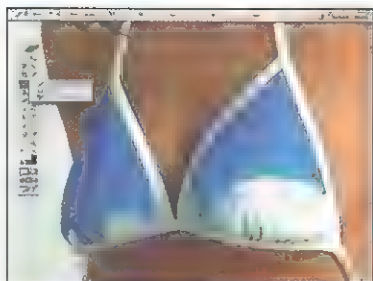
Digitally nip, tuck and even stretch your body – or someone else's – to get it into shape, without having to go on a diet or spend months working out at the gym

So far in this Focus Guide we've mostly looked at how we can use Photoshop's nifty toolset to cosmetically enhance our subjects' eyes, mouth, skin and other facial features. We've seen how we can bring out the best in our subjects, without resorting to creating a totally false impression; we want our portraits to remain recognisable, after all! By flattering our portraits digitally, we can present other people – and ourselves – in the best possible light.

Photophobia

Many people hate the actual process of having their photograph taken. In

some cases this can be due to simple modesty, but such an aversion can also be caused by low self-image. Some people may have seen too many shots in which they were pulling silly expressions, or had their eyes closed. Ironically, it's this very fear of having their photo taken that causes people to be awkward and tense in front of the camera, resulting in yet more unflattering portraits. Regardless of our confidence in front of the camera, how we look in photos can also be adversely affected by technical phenomena such as overexposure and lens distortion. Fortunately, as we've seen already, Photoshop's



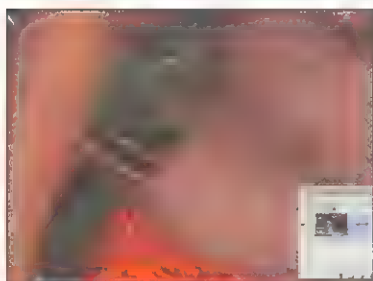
Page 46 You don't need a Wonderbra; Photoshop offers all the support you need



Page 47 Digitally enhance that puny chin for a more masculine profile



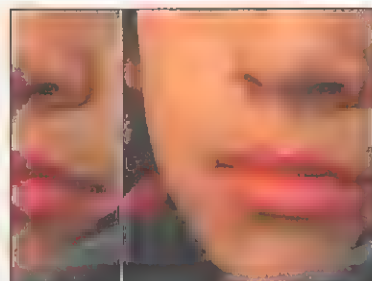
Page 48 Use Photoshop's filters to create more impressive, bulging biceps



Page 49 Say goodbye to 'love handles' using the Pen Tool and Clone Stamp



Page 50 Add interest to a portrait with a digitally-designed tattoo



Page 51 Coax a smile out of even the most reluctant portrait subjects

many tools and menu options can wrestle a decent shot from even the most disappointing portrait.

Fake that physique

Another reason why we may find people heading for the hills as soon as they see a camera appear is that they're unhappy with their bodies. Thanks to continued exposure to the ideals of physical perfection perpetuated in films, on TV and in magazines, many people want to be taller, have bigger (or smaller) breasts, trim that beer gut and lose weight in general. Indeed, the sight of a particularly unflattering portrait can be all the motivation we need

to go on a diet or head for the gym.

In this chapter we'll move from flattering the face to flattering the figure, as we focus on altering and enhancing various parts of the body. If the camera never lies, then Photoshop can certainly tell a few whoppers when it comes to altering our physique! Our desire to be a bit taller or sport a six-pack may remain unfulfilled in real life, but Photoshop has all the tools we need to make sure we look great in our photos. And, by digitally manipulating our bodies to create a photorealistic and believable result, we'll master skills that we can apply to other areas of our Photoshop work.

Breast enhancement

Give your female subjects a little lift and shape without them having to wear a Wonderbra



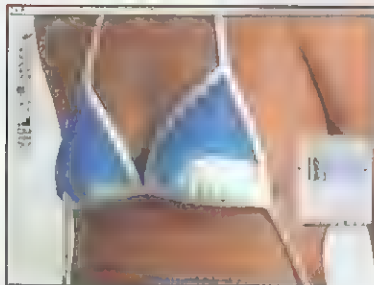
Follow the curves

As you place an anchor point, click and drag the mouse to create a circle between the current point and the previously-placed one. This allows you to select curved areas quickly, and with the minimum of anchor points.



www.iStockphoto.com

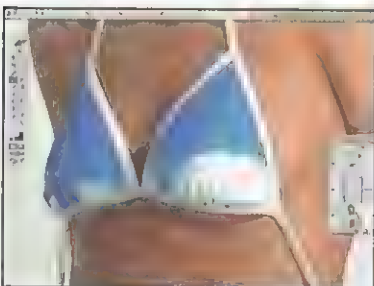
Many of the portrait shots used in this Focus Guide were sourced from readers of Digital Camera Magazine. Other shots, such as the one on this page, were bought for a reasonable fee from iStockphoto, which provides an excellent source of portrait-related material on which you can practise your image manipulation skills.



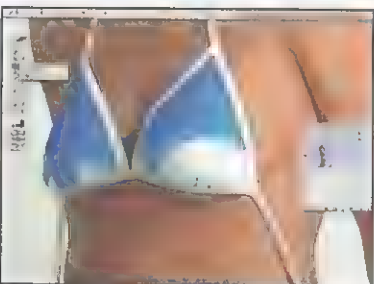
1 For decades bras have been used to help women accentuate their natural figure. As well as providing support for the wearer, some bras are designed to enhance the cleavage by creating a fuller appearance. We can achieve similar effects using Photoshop. Using the Pen Tool, click to place anchor points that select the chest around the bikini, as shown.



2 Right-click in the selection and choose Make Selection from the context menu. Then do Edit > Cut followed by Edit > Paste; the selected area will appear in a new layer. Move the selection up using the Move Tool. Hit [Command]+[T] to activate the Free Transform Tool. Enlarge the selection by dragging the handles. Hold down [Alt] to align the cut bikini strap with the strap on the original layer.



3 Repair the gaps in the image using the Clone Stamp Tool [S]. Create a new layer called Clone, and place it underneath the bra layer but above the original layer. Use the Clone Stamp to sample skin from the original layer, and spray it to join the original and edited layers together. Use a small Clone Stamp brush to extend the bikini strap so that it joins up with the strap on the copied layer.



4 There are some visible lines where the skin on the copied and pasted layer overlaps the cloned skin, so link the layers using the chain icon and select Layer > Merge Linked from the main menu. Now use the Healing Brush to gently mix cloned and copied skin together, to hide any telltale seams that will betray the digital manipulation that the image has undergone.

Take it on the chin

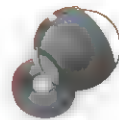
Enhance a male subject's jaw line to give him that Hollywood leading man look

Like many men I've always hankered after a George Clooney style profile, but had to live with one that's more George Formby! Although I'm fairly happy with the way I look, if I ever do contemplate undergoing a chin enhancing procedure I can show the surgeon exactly what I'm after thanks to Photoshop. So far we've tried out a variety of techniques that enable us to alter images realistically. A common approach involves using the Pen Tool to accurately select the area that we want to change, the Free



Photoshop's Pen, Transform and Clone Stamp tools are all that we need to select and reshape our subject's chin

Transform Tool to manipulate the selection and the Clone Stamp Tool to cover our tracks.



Chin.jpg

Use the source image to practise extending the chin using the tools featured on this page. See if you can disguise all traces of digital manipulation using the tips we've provided.

COSMETIC SURGERY TIPS

- ☐ **OPACITY:** When you're using the Clone Stamp Tool to extend skin from one area of an image into another, you can use the number keys to quickly change the opacity of the brush, to make the cloned pixels merge with the ones they're replacing. Press [1] to make the brush 10% opaque, [2] for 20% and so on, through to [0] to make the brush 100% solid.
- ☐ **EDGES:** When using cloning to extend a distinctly-textured edge, such as the stubble on the underside of our subject's chin on this page, press [Alt] to sample the desired pixels. Then clone them to create the new chin's outline. Clone and transfer pixels to join up the gap between the old and new chin edges.
- ☐ **USE ALL LAYERS:** Always create a new layer for your cloned pixels to occupy. You can always delete it if things don't work out. Tick the Clone Stamp's Use All Layers option, so that you can transfer pixels from the source layer to the clone layer.



Labels

When you perform your Photoshop surgery, you could end up with a lot of layers. Follow good housekeeping procedures by labelling them as you create them, so that you don't waste time later hunting for layer content.

Bulging biceps

Avoid the need for your subject to spend hours in the gym by digitally enhancing their biceps



Selection tools

There are a variety of ways to select an area of pixels. In this example we used the Pen Tool [P], but for a rough selection, such as around the bicep, we could have just as easily used the Freehand Lasso Tool [L]. Experiment with Photoshop's selection tools to find the one you're most comfortable with.

Fashions come and go, and, as we know, fashions can apply to physical appearance as well as to clothes. Even body shape is not immune to the whims of fashion. When he was seeking the title of Mr Universe, Arnold Schwarzenegger pumped iron like there was no tomorrow to build up his muscles. Once his acting career took off he began to tone down his gargantuan physique. One of Arnie's predecessors was Charles Atlas, who won the 'Most Perfectly Developed Man' contest in 1922. Later on he

sold the dream of bulging biceps to thousands of youngsters by advertising his body-building techniques in comics. Adolescent lads everywhere were urged not to let bullies kick sand in their face by following Atlas's system. The pressure is still on men to have a finely-honed physique today; in gyms across the land there are thousands of Arnie wannabes who spend hours lifting immense weights in search of bulging biceps. Try increasing muscle mass the easy way – Photoshop style.

MAKING MUSCLES

Pump those pixels into shape using the Spherize filter

To give your subject a more impressive physique, select the bicep using the Pen Tool [P]. When you've drawn a path around the bicep, right-click in it and choose Make Selection from the pop-up context menu. Duplicate the layer. Go to Filter > Distort > Spherize. Set the filter's Mode to Vertical Only to increase the bicep's width in a realistic fashion. Change the percentage of the filter depending on how large you want the bicep to be. Add a layer mask to the new muscle layer. Tidy up the join between the filter-enhanced bicep and the original layer by spraying a soft-edged, semi-transparent black brush around any visible lines to remove them.



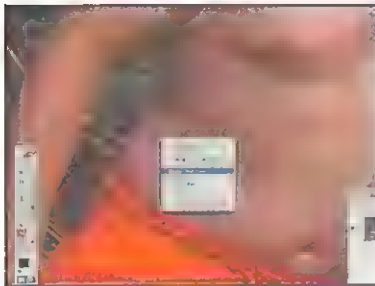
Create a bulging bicep in seconds by applying the Spherize filter to a Pen Tool selection

Fighting the flab

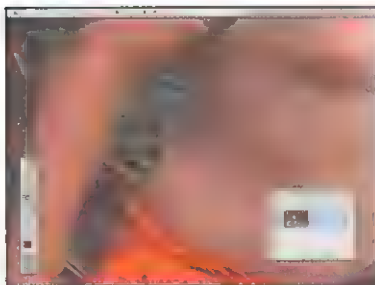
You can trim away fat in selected areas of an image to give your subject a leaner look



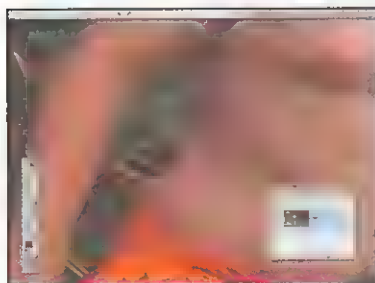
1 As you get older your metabolism slows down. This means you don't burn off the amount of calories you did when you were younger, and these calories take up residence as fatty deposits. When the summer comes and you hit the beach, the last thing you want from your holiday snaps is a reminder that you're piling on the pounds – so let's digitally trim that fat for a more flattering photo.



2 Select the Pen Tool [P] and click to place anchor points to define the ideal shape of the torso around the waist. Include part of the clothing, as we'll need to reduce the waist size of the swimming trunks to make them fit the resized waist. Right-click inside the path and choose Make Selection from the context menu. Set the selection feather to at least one pixel to give a soft edge to the selection.



3 We're going to use this Pen-drawn selection to help reshape the body. Go to Select > Inverse in the main menu bar. Now the ideal shape of the body will be protected from any edits that you make to the unwanted fatty edges. Select the tried and trusted Clone Stamp Tool from the toolbox. Press [Alt] and sample a section of background adjacent to the unwanted 'love handles'.



4 Clone chunks of chair, wall and grass up against the selected outline. You won't be able to accidentally spray cloned pixels into the protected area. Press [Alt] often to sample and extend items such as the chair leg to cover the excess fat. When you've finished cloning, inverse the selection. Use the Burn Tool, set to Midtones, to spray in a hint of shadow at the edge of the trimmed body outline.



Lose those layers

We're not talking about layers of fat here! Hide the Layers palette by hitting the [F7] key. You can then work on the image without the palette getting in the way. Press the same key to show the palette when it's required. Using [F7] keeps the toolbox visible. To hide all floating windows just hit [Tab].



Revert

If you take a wrong turn and end up with a digital disaster instead of a marvellous makeover, you can quickly restore your image to its original state. Hit [F12] or go to the main menu bar and choose File > Revert. This will return the file to its last saved state.

Tattoos

Design and add your own tattoos, and blend them realistically with your subject's skin



Shoulder.jpg

Use the image on your CD to practise applying your digital tattoo blending skills.

Tattoos are another body adornment that relates to the ever-changing whims of fashion. No doubt the young lad who featured in the papers a few years back has regretted having permanent portraits of the Spice Girls tattooed on his body. Only laser surgery can remove a permanent tattoo, but this leaves skin-blemishing scar tissue; more recently we've been able to buy and apply ready-made temporary tattoos. You can use Photoshop's Pen Tool to draw your own tattoo design. Make sure that



Use the Pen Tool to design a tattoo. Alternatively, experiment with a predesigned shape. Then use Photoshop to try it out for size

Shape layers is selected in the options bar, then draw a vector shape tattoo design on a separate layer.

CREATING AND BLENDING THE TATTOO

Make sure that the Shape Tool is set to Shape layers, otherwise it will only draw an outline, instead of a filled shape.

Click and drag to draw with the selected Shape. Hold down the [Shift] key to constrain it.

The Custom Shape [U] Tool gives you access to a wide range of shapes. Many of them are suitable for tattoo designs.

Click here to open the Custom Shape Picker to choose from a wide variety of scalable vector shapes.

Merge the Tattoo with the skin by changing the layer blending mode to Hard Light. Add a hint of Noise filter for texture.

Hit [Command]+[T] to activate the Free Transform Tool. Drag anywhere outside the selection window to rotate the shape.

Smile!

Bring a smile to the face of your subject, even if they were in a bad mood when photographed!

Photographs are a valuable family heirloom. They record the progress of our children as they grow and develop. Happy memories of family days out can be evoked whenever we open a photo album (or, in these digital days, when we click play on our PC's image library slideshow). Thanks to pressure of time and living long distances apart, it can sometimes be difficult to get all our family members together for a group shot. Older relatives might not have seen their grandchildren for months, so a photograph can be

an important souvenir of the occasion. However, movie stars sometimes warn 'don't work with children and animals'. This is because their behaviour is hard to control in front of a camera. Your child might look less than ecstatic when photographed sitting on their Granny's lap, but you still want Gran to have a souvenir of her time visiting her beloved Grandson. A quick tweak or two using Photoshop's Liquify filter will turn a sulk to a smile – and Gran will be none the wiser.



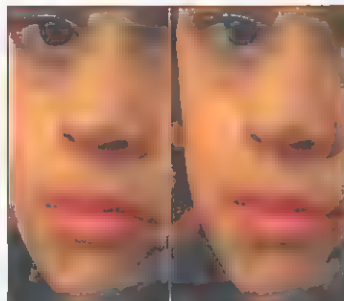
Smile.jpg

You can see this photo of grandson and grandparent in its entirety on the cover CD. Try out your smile-raising skills on it. Thanks to Duncan Walker for use of the image.

FROM A GRIMACE TO A GRIN

Employ the Liquify filter's toolset to raise a smile

Select the area you want to edit using the Elliptical Marquee Tool. Draw around the subject's mouth area, then go to Filter > Liquify. A new window will open, presenting you with an isolated view of the mouth. The Liquify filter window has its own toolbox, which is similar to the normal floating toolbox. Use the Zoom Tool to zoom in more closely on the selected area. Now select the Forward Warp Tool, and, using a fairly large brush, drag the pixels at the edge of the mouth upwards. Be very subtle; the slightest raise at the corners of the mouth is all you need to completely change the apparent mood of your subject.



A few seconds spent pushing pixels with the Forward Warp Tool is enough to lighten your subject's mood

ENHANCING PORTRAITS WITH COLOUR

Getting the colours right can be the difference between a perfect portrait and just another snapshot, so make use of Photoshop's range of colour correction and adjustment tools

So far we've manipulated our images by pushing pixels around. This has enabled us to enhance our portraits by adding hair, increasing muscles and even turning a sulk into a smile. Photoshop has plenty of tools for rearranging the pixels that make up our portraits. The Clone Stamp and the Pen Tool work together to help us perform a wide variety of portrait-enhancing operations. By mastering these tools we can alter our portraits in a believable, photorealistic way.

Unsung heroes

Placed prominently in the Photoshop toolbox, image manipulation tools

such as the Clone Stamp tool have a high profile. They can create dramatic results (like making someone with a good head of hair look completely bald, as we saw on page 38). Tools such as the Clone Stamp might be viewed as the stars of Photoshop, but there's more to portrait enhancement than merely shifting pixels from one part of the screen to the other.

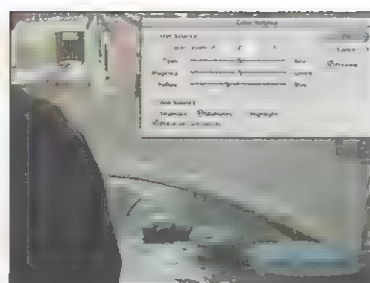
In this chapter we'll take a look at some of the Clone Stamp's co-stars. These are tools and commands that enable us to apply less spectacular, but equally important, improvements to our portraits. While the Clone Stamp and Pen Tool could be viewed



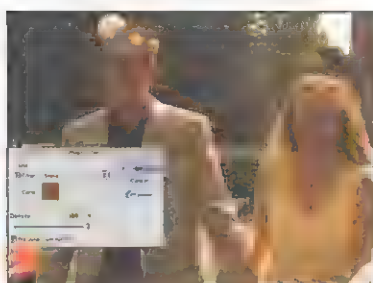
Page 54 Examine colour temperature and discover the problems it can cause



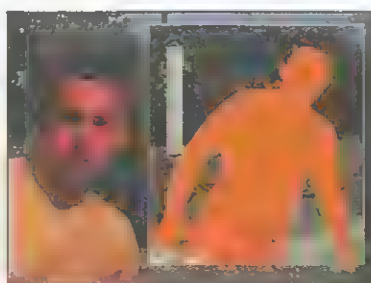
Page 55 Use CS's Match Color option to control the colour of a group of images



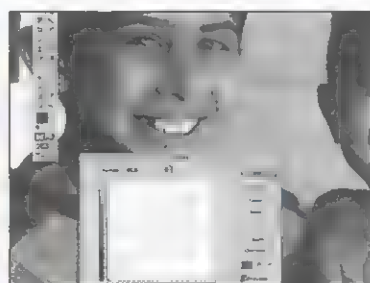
Page 56 Correct your portrait's colour using the Color Balance menu



Page 59 Use the new CS Photo Filter to add creative colour tints in seconds



Page 60 Use the Pen Tool, a vector filled shape and layer blends for an instant tan



Page 61 Use the Curves dialog box to enhance a black-and-white portrait

as the strikers of the Photoshop team, they require the support of these other team members if your portrait enhancement projects are to be successful.

Colour correction

Hidden away in Photoshop's menu bar, like substitutes waiting on the bench, are a variety of menu commands that will help you to improve your portraits by editing the colours. We've already touched on the importance of colour in relation to enhancing our images. In Chapter 3 we looked at ways in which the Image > Adjustments menu enables us to change hair

colour, to turn a blonde into a redhead, for example.

Digital cameras don't always represent colour accurately, and this can cause difficulties in our portrait work. In this chapter we'll look at problems caused by colour balance, and how to overcome them. Other camera-related problems such as red-eye can spoil a decent shot, so we'll look at how Photoshop's colour correction abilities enable us to overcome this phenomenon. We'll also take a look at how Photoshop CS's Match Color menu can bring images with different colour casts into line, to make them complement each other.

Colour temperature

Study the concept of colour temperature to see the problems you may have to overcome



Going manual

Most digital cameras perform a colour balance automatically. If it's a particularly dull day when you're shooting outside, give the camera a helping hand by changing the colour balance setting from auto to outdoor. This will guarantee that it warms up the colour balance. Don't forget to change the settings back to auto, or indoor shots will look very warm indeed.

Daylight and artificial indoor light have different wavelengths. These wavelengths are measured in Degrees Kelvin, giving light a 'colour temperature' which can dramatically affect the colour in your portraits. To the electronic eye of your digital camera, warmer indoor light is seen as orange, while cooler outdoor light can appear blue. The human eye compensates for this colour difference, and cameras have got very good at balancing colour differences, but occasionally strong indoor tungsten light bulbs will tint

the whole shot with a warm yellow cast, and outdoor shots can show a cool blue colour cast if the camera fails to balance the colours correctly. If you have a range of photos taken both indoors and outside they might have different colour tints. This can lead to images contrasting when viewed together on the page of an album, for example. CS users can give their portraits a consistent look by applying the colour temperature of one image to another. We'll also take a look at alternative ways of correcting colour in Photoshop 7.

GET THE BALANCE RIGHT

Use Photoshop CS's Match Color option to harmonise your shots

Photoshop CS users have a new and powerful colour correction tool at their disposal in the shape of the Match Color menu option. You can quickly use this to make an unbalanced shot conform to an image that's correctly colour balanced. Match Color is also good for giving a whole range of photos a common colour range. Photoshop 7 users aren't left out; they still have a variety of tools available to tackle colour balance problems. We'll look at those options later, but we'll start with a walkthrough to show you how CS's Match Color feature works. It's a valuable tool for the portrait photographer – it might even motivate you to upgrade!



This outdoor image has a blue colour cast, but we can soon warm things up using the Match Color command


Match Color command

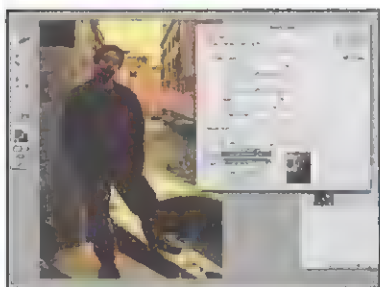
Unify the colour of a variety of shots using the Match Color option in Photoshop CS




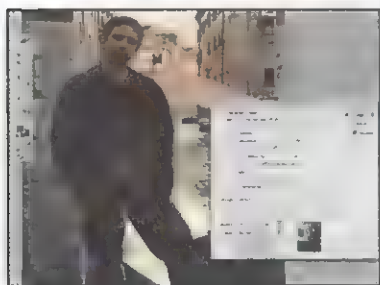
 We can preserve our holiday memories by taking photos of friends or family posing on location. However, weather and lighting conditions can vary from day to day, leading to mismatched colour casts in our snaps. This shot was taken on a trip to Venice when the sky was dull and overcast, and as a result it has a cool blue tint.



 Another day of the holiday might be much brighter, and photos will have warmer, better-balanced colours. We can make the cooler, dull day shots take on the colour value of the correctly-balanced shots by using CS's Match Color menu. Open a shot that has well-balanced colours, and open another one with a cooler, blue cast.



 With the two contrasting shots open, go to Image > Adjustments > Match Color. In the Match Color window, go to the Source menu and select the warmer image that you want the cooler blue shot to match. You can even specify which layer you require to match the colour of source photo. Click OK. This will bring the colour balance of the problem shot into line with the correctly-balanced image.



 If the colour alteration is too dramatic you can fine-tune the effect of the edit in the Match Color window. Adjust the Fade slider to reduce the influence of the warmer source image. You can also reduce the colour intensity if the colours are too vivid. This will help you to get a perfect colour balance, so that both shots look like they were taken in the same sunny conditions.



VeniceCool.jpg, VeniceWarm.jpg

We popped the two shots used in this walkthrough on your cover CD, so Photoshop CS users can practise balancing the shots using Match Color.



Photo Filters

Another quick way to warm up (or cool down) an image in Photoshop CS is to go to Image > Adjustments > Photo Filter. Check out page 59 for more information on this new addition to Photoshop's colour enhancing options.

Colour balance in Photoshop 7

Photoshop 7 users can combat colour balance problems using the Image Adjustments menu



Colour Wheels

Check out www.colormatters.com/colortheory.html for more information on colour wheels. This online page also features a colour wheel that you can use as a reference.

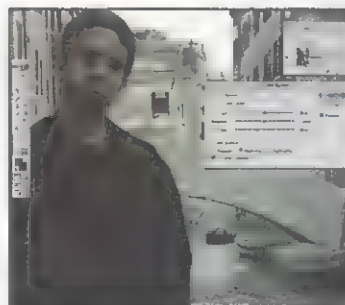
Not all Photoshop users have access to CS's powerful Match Color menu option, but even if you don't you can still warm up or cool down problematic colour balance shots using version 7; check out the box below to see how. Photoshop CS users can, of course, use this method as well. When you're altering an image's colour balance, it helps to have access to a colour wheel, so that you can see how to balance the image to achieve the warmer or cooler colours that the shot requires. Colour wheels display

a spectrum of colours in relation to each other, and enable you to see complementing and contrasting colours. To reduce the level of one colour, you need to add colour from the opposite side of the colour wheel. For example, a colour wheel shows us that to reduce a blue tone in an image we need to add more yellow to the shot, since yellow is the colour on the opposite side of the wheel to blue. This is very useful knowledge to have, as we can then put the theory into practice using Photoshop's Color Balance menu.

COLOUR BALANCE

Adjust your portrait's colour balance in Photoshop 7 and CS

To warm up an overly-cool blue image, go to Image > Adjustments > Color Balance. Here you can adjust the portrait's colour to warm up or cool down the tone of an image. To enhance our example shot, which was taken on an overcast day in Venice, we slid the slider towards yellow to warm things up. Adjust the colour of the Shadows, Midtones and Highlights separately for greater control over the finished image. As we've removed some blue from the shot to warm it up, you'll notice a minus value in the blue section of the RGB numerical display.



Photoshop's Color Balance menu is an ideal way of tweaking an image's colour to warm it up or cool it down

Removing red-eye

Red-eye is the scourge of many a portrait shot, but we can eradicate it using adjustment layers

On the previous page we looked at a technique available to users of both Photoshop 7 and CS to achieve a perfect colour balance in portraits. On this page we'll stick with a Photoshop 7-friendly technique, as we look at one way to clobber red-eye into submission; we'll look at an alternative technique that Photoshop CS users can employ on the following page. Photoshop is such a powerful package that there are often several different ways of achieving the same results. Red-eye can ruin an otherwise acceptable



Use adjustment layers to minimise the red-eye effect of camera flash reflecting from your subject's eyes

portrait. It's caused by light from the camera's flash bouncing off the blood vessels at the back of the eye.



Untouched source

Adjustment layers are a useful tool, because they don't actually alter a single pixel in the source image.

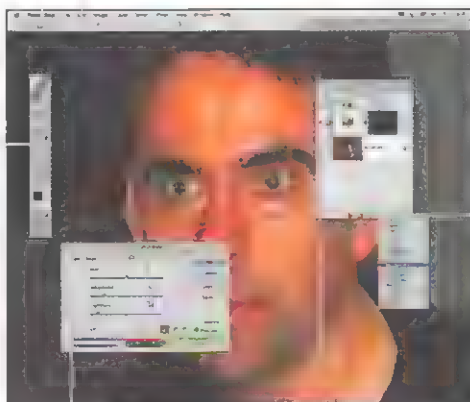
This means you can experiment at your leisure with different image adjustment techniques, safe in the knowledge that your original file is always accessible.

ADJUSTMENT LAYERS

Set the Marquee Tool to Add to selection. You can then select the pupils of both eyes to be edited by the adjustment layer.

Use the Elliptical Marquee Tool [M] to select the areas you want to edit, and to limit the effect of the adjustment layer.

Set the Hue/Saturation window to edit Reds. Then reduce the Lightness value to restore the red pupils to black. This will still preserve the reflective highlights on the eyes.



Set the Marquee Tool's Feather option to 3 pixels in the options bar. This will help the adjusted pixels to blend more subtly with the rest of the image.

Use the shortcut at the bottom of the Layers palette to select the Hue/Saturation adjustment layer option.

The adjustment layer (or layers – you can have as many as you like) can be turned on and off using the Eye icon.

Removing red-eye in CS

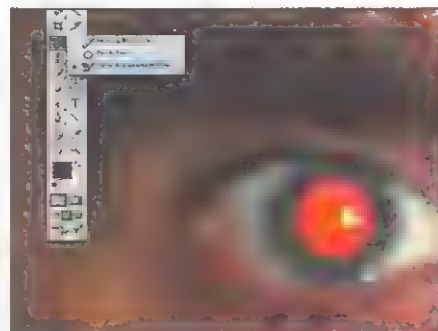
Use Photoshop CS's Color Replacement Tool as an alternative way to eradicate red-eye



Red-eye prevention

To avoid having to correct red-eye, turn on your camera's red-eye prevention flash setting if it has one. The camera will set off a pre-flash before the shutter is triggered. In theory this should make your subject's pupils contract, thereby reducing the amount of light that hits the back of the retina. However, this doesn't always work.

One new addition to Photoshop CS's toolbox is the Color Replacement Tool (it's getting quite crowded in that toolbox!). On page 36 we looked at using the Replace Color menu to turn a whole range of selected grey hairs black. The Color Replacement Tool does a similar job, but it allows for much more precise control. You can replace pixels of a specified colour with a new colour, using many of the benefits that a brush-based tool can offer. This enables you to use brush size and softness to more accurately select



You can paint out distracting red-eye with a much greater level of control using the Color Replacement Tool in Photoshop CS

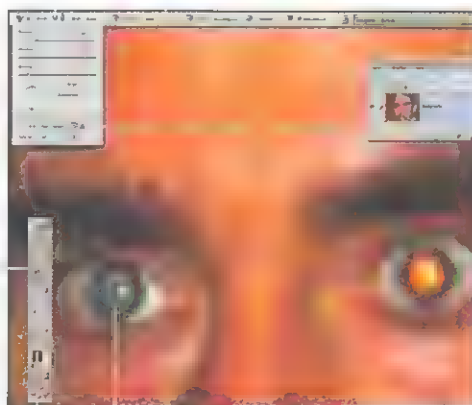
and replace colours in your portrait. The Color Replacement Tool is perfect for fixing red-eye.

THE COLOR REPLACEMENT TOOL

Adjust the tool's softness and diameter using the Brush Preset picker.

The Color Replacement Tool is designed for subtle corrections, so shares a toolbox compartment with the Healing Brush and Patch tools.

Set the Foreground Color to display the colour you want the tool to use to replace unwanted pixel colours (like red!).



Set sampling to Once. Then click on the image to sample some red pixels for the tool to replace with the foreground colour.

For more interactive control of the tool's brush tip, use a pressure-sensitive stylus to adjust the size of the area you're correcting.

Spray the foreground colour on to the sampled red pixels. If you miss any, click to resample, or increase the tolerance in the options bar.

Instant tints

Photoshop CS's new Photo Filters offer a quick way of tinting or colour-correcting a shot

Earlier in this chapter we looked at how you can fix incorrectly colour-balanced shots that added an orange or blue hue to a portrait. We saw how Photoshop 7 and CS users could correct these tints using the Color Balance menu (see page 56). Adobe has recognised the need for photographers and designers to fix such colour problems fast, so Photoshop CS users will find a whole new section of filters available that have been designed to help them quickly warm up or cool down problem portraits. Despite

containing filters, the new Photo Filter menu actually lives under the Image > Adjustments menu, and not the Filter menu as you might expect. This is because the Photo Filter menu is designed to mimic the coloured filters that are placed over a traditional camera lens to adjust the colour hue of the shot. You can quickly correct shots which have a colour problem by using the appropriately-named Warming Filter (85) to remove a blue cast, or Cooling Filter (80) to reduce the hue of a warm orange colour.



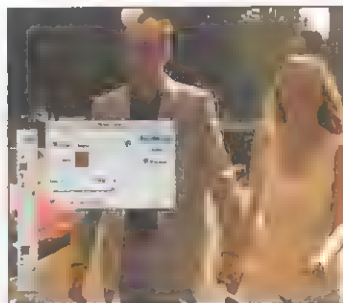
Modifying filter colours

There are a variety of preset colour filters in the Photo Filter menu. You can adapt any of these colours by clicking on Color, then choosing a new colour from the pop-up Color Picker.

ADJUSTING HUE

Use the image adjustment tools to change a portrait's colour hue

Both Photoshop CS and version 7 users can alter the colour hue of an image by going to Image > Adjustment > Hue/Saturation. They can then use the Hue slider to tint the image a variety of different colours. This will enable you to change the mood and tone of an image. CS users can also use the Photo Filter command as a quick alternative to the Hue/Saturation menu. As well as correcting colour balance they can subtly tint their portraits using a variety of one-click preset options. The Sepia setting will give your portrait a stylised, old-fashioned look; this is perfect for lending a warm, romantic ambience to a wedding portrait, for example.



Use the Sepia setting in the Photo Filter menu to quickly stylise a wedding portrait

Photoshop sun-tan

Use Photoshop's colour correction abilities to get an instant tan – even in Britain!



Magnetic Pen Tool

The best way to draw a selection that you can easily edit is to use the Freehand version of the Pen Tool. In the options bar you can give the tool a helping hand by enabling the Magnetic option. This makes the tool behave in a similar fashion to the Magnetic Lasso, with the bonus that you can fine-tune the selection by shifting the anchor points around.

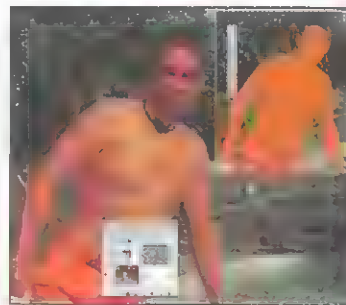
Mad dogs and Englishmen go out in the midday sun, according to the song by Noel Coward. This is because, living in Britain, we can't guarantee that we'll see enough sun to turn our skin a beautiful shade of bronze during the course of a summer. So, as a nation of sun lovers, we'll take every opportunity that we can to soak up some ultra violet rays. A tan is a status symbol that boasts 'I've been on my hols!' to your office-bound co-workers. Some people even resort to using a sun bed to give their tan a

kick-start, so that their 'white as a sheet' skin won't embarrass them when they hit the beach. It's always nice to be able to show off holiday snaps in which our skin glows a golden brown. Perhaps you're like me and can't get a decent tan, even in the best of summers. With my dark hair and pale skin I tend to go red, then back to white, so a healthy tan has always eluded me. But, thanks to Photoshop's tools, I can enhance the colour of my pale skin and, in my portraits at least, have a terrific tan.

FAKING IT

Use Photoshop's image adjustment tools to create a realistic tan

While some sun exposure is essential to make your body generate Vitamin A, too much UV can prematurely age the skin, or cause lasting damage. You can add a healthy golden hue to your skin without having to leave the country, or hire a sunbed, by using the magic of Photoshop. Choose a suitable tan-like foreground colour and select the image's skin areas with a vector shape drawn using the Pen Tool [P]. Make sure that you set the tool's option to Shape layers in the options bar, or it will only create a path. Set the vector shape layer's blending mode to Color Burn and reduce the layer's opacity to create tanned-looking skin.



Can't tan, won't tan? Use Photoshop's colour correction tools to safely tan your skin without UV damage

Black-and-white beauty

Lose all colour information from an image to create a stylish monochromatic portrait

With the advent of the digital darkroom we expect instant results. We no longer need to mess around in the dark, playing with smelly chemicals and making test exposures on photographic paper to get a decent print. Indeed, we no longer need to shoot on black-and-white film at all in order to get a monochrome portrait. In Photoshop we can easily convert a colour shot to monochrome with a few clicks. However, traditional photographers learned that getting a decent black-and-white print required much care.

If the negative was exposed for too long or too short a time then it could look very washed-out. Photoshop users have much to learn from these traditional techniques. Hitting the Desaturate command isn't enough to create an effective monochrome portrait. You want your image's blacks to be pure black, and the whites to be strong whites, or the whole shot will be a washed-out and drab looking grey. Check out the box below for a technique that turns a colour portrait into a striking black-and-white shot.



Monochrome.jpg
Practise creating a well-defined monochrome image using the colour source file on our CD.

PERFECT MONOCHROME

Use Curves to add strong contrast to black-and-white portraits

Pure black in an image is defined as 0, and pure white is defined with a value of 225. We can assign these values to selected tones in our image. First take your colour shot and go to Image > Adjustments > Desaturate. This will remove all colour information. Then go to Image > Adjustments > Curves. The left eyedropper enables you to define a selected tone as pure black. In this example we clicked on the hair of one of the boys. The right eyedropper enables you to define a selected tone as pure white; we clicked on the teeth of the boy on the right. We now have an image that has a tonal range from pure black to pure white.



Get your blacks 100% black and your whites 100% white using the Curves dialogue box

Chapter 6

HOW LIGHTING AFFECTS YOUR PORTRAITS

In this chapter...

- ☐ Understand the concept of three-point lighting set-ups
- ☐ See how to make effective use of available light
- ☐ Create dramatic lighting effects
- ☐ Break the rules of traditional lighting
- ☐ Fake lighting in Photoshop

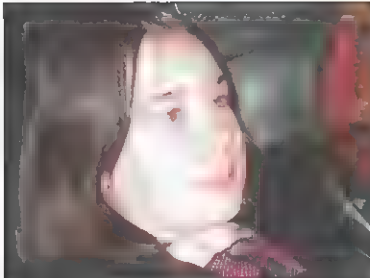
Lighting can make a huge difference to the look and mood of your portraits. In this chapter we'll look at how to light your subjects properly, and how to fake lighting in Photoshop

When we take a portrait photograph, the last thing we're probably thinking about is the lighting. Most of us will take it for granted that we simply press a button on our camera and get a shot which we can upload on to our PC, or send off to be developed. We're usually more concerned about the composition of the shot, and whether the subject is saying 'cheese' or not. Yet lighting can make or break a portrait. It can create different moods, and add definition and texture to an image. In this chapter we'll examine a variety of lighting conditions and effects, and demonstrate how each

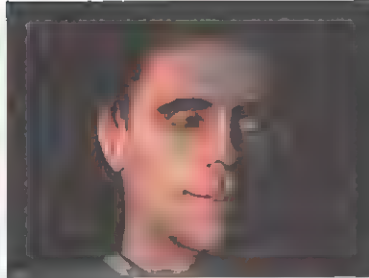
one can enhance (or detract from) your portrait shots.

Not so flash

Most compact digital cameras are dependant on a certain level of lighting to get a decent shot. If the light levels are too low you'll get a grainy, and probably blurry, portrait. One way around this problem is to use the camera's built-in flash. But, as we'll see in this chapter, while the flash may illuminate the subject it can create less-than-flattering portraits. Because the flash is situated directly above the lens, the subject of the shot is lit from the front, creating a flat, washed-out



Page 64 See why it's best to avoid using a camera-mounted flash where possible



Page 65 Use a key light to add shape and definition to a portrait



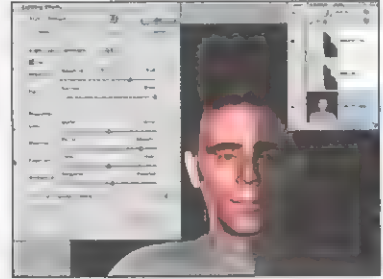
Page 66 See how to reduce harsh shadows using a fill light



Page 68 Combine a key light and a back light for a film noir style portrait



Page 69 Add atmosphere by adjusting the height of your light sources



Page 72 Fake the effect of lighting using Photoshop's Lighting Effects filter

appearance (see page 64). More professional SLR-style cameras offer options that avoid using crude flash lighting to capture subjects in low lighting conditions. You can change the camera's ISO to a higher setting, and reduce the shutter speed to capture a decently-exposed shot using available natural light.

The right kit

For the aspiring photographer, the camera is only one part of the kit. A tripod is indispensable. This will keep the camera steady in low lighting conditions, so that you can use a longer exposure rather than a camera-mounted flash. You can also

buy flash units which can be positioned at an angle to the subject to avoid the flat, washed-out look. These free-standing flash units can be triggered remotely to synchronise with the camera shutter. You could also consider forking out for a portable lighting kit. A set of three lights on adjustable telescopic stands is an invaluable tool for any photographer who's serious about lighting. Most effective lighting set-ups involve a variation on the position of three light sources. We'll examine the various three-point lighting set-ups over the next few pages, to see how they contribute to more effective portrait photography.

Flat-lit images



Modelling

When we refer to modelling in this chapter, we're not talking about the catwalk! Modelling with light means positioning the light source to create shadows that enhance and define the shape of the subject's facial features.

Using a camera-mounted flash gives portraits a washed-out look, so use alternative light sources

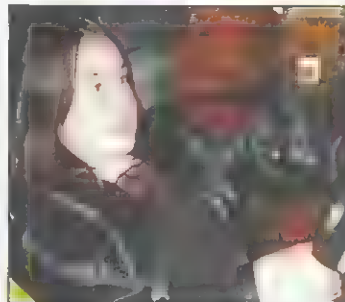
Thanks to the portability and compact nature of many digital cameras, we're more likely to take them out to the pub or to a party, to catch the action as it happens, than we are with traditional cameras. Most party-type pictures are shot indoors, causing the camera to set off the flash automatically. These types of flash-lit shots are unlikely to result in flattering portraits. As well as creating unsightly red-eye, flash-lit shots flatten the subject's face by removing all shadows and creating a bland and washed-out

look. Try experimenting by turning off the camera's built-in flash and looking for other available light sources, such as light from a window or a lamp. Steady the camera by resting it on a hard surface, and reduce the shutter speed so that the image will be exposed for longer. Avoid camera shake as you press the shutter by setting the auto timer to take the picture for you. Using alternative light sources will add warmth, depth and character to your portraits, making them far more interesting than flash-lit shots.

FEAR THE FLASH

Avoid flat-lit shots caused by using a camera-mounted flash

Using a camera-mounted flash creates the kind of results achieved by soap opera style studio lighting. Soaps are shot in a rush, so there's no time to set up lights for each shot. The studio is flooded with light, so that the camera can point at any actor and see them clearly. This means that all the actors are blandly flat-lit, robbing their faces of the sculpting and definition that good lighting can achieve. A camera-mounted flash doesn't hit the subject at an angle, so there's no opportunity for using light to create shadows that would bring out details in the face. In this chapter we'll look at how angled lighting helps to 'model' the face more effectively.



This image is a typical flash-lit shot. The subject is flat-lit and washed-out, and valuable image information is lost

Key light

Bring out some detail and add definition to your subject's face by using a key light

Nature provides us with an excellent dominant light source – the sun. Light from the sun falls on objects and creates shadows; this is an example of natural key lighting. Having a dominant key light in an image is the first step to creating an effectively-modelled portrait. All portraits should have a noticeable key light to help bring out shadows and create a sense of modelling. To introduce some modelling into our portrait we need to move the key light source so that it falls on the subject from an angle.



Here's our portrait subject lit from the front to mimic a camera-mounted flash. We'll lose the flat-lit effect as we add lights to the shot

This light source can be from a window, a portable flash unit, or a lamp mounted on a tripod.



Poser

To illustrate the different lighting effects, and show how they can enhance your portrait work, we've created a model in Poser. Poser is designed to build and pose models for illustration work. It also enables you to create and position lighting, which is a great way to see how different lighting conditions change the look and appearance of a portrait.

ADD A KEY LIGHT



Fill light

You can reduce the harsh shadows created by the key light by adding a softer fill light



Lighting kit

You can create a soft fill light by bouncing your flash or light off a wall. Alternatively check out www.jessops.co.uk. Here you can find a variety of lighting accessories, such as umbrellas that will soften flash light and reflect it on to your subject.

Our key light has certainly turned the original flat-lit portrait into a much more interesting shot, giving it a three-dimensional, sculpted appearance and creating a sense of atmosphere. After adding a key light you can now see more of the subject's bone structure and the general shape of their face, thanks to the shadows created by the light. This is the type of lighting set-up used by 'film noir' movie directors to give their detective hero's face a stark, chiselled look (think of Humphrey Bogart in *The Maltese*

Falcon, for example). Having parts of the face in extreme contrast creates a sense of mystery and menace. On its own, however, a key light can be a little too dramatic for standard portrait work. You need to reduce the strength of the shadows caused by the key light to restore some of the facial detail that has been lost in the darkness. This is where a fill light comes in handy. By placing a second light source at the other side of the face to the key light you can fill in the shadows, so that they're not so harsh and contrasting.

USING A FILL LIGHT

Fill in those stark shadows caused by the key light

The trick to using the fill light successfully is to make sure that it doesn't compete with the key light. If the fill light is too strong you'll end up with two key lights, and two sets of shadows. This will give you the strange 'two noses' effect as you get competing nose shadows caused by the two light sources. The fill light needs to be softer and less intense than the key light, so that it gently fills in the shadows created by the key light without creating shadows of its own. Placing diffusing material in front of the fill light can reduce its intensity. Alternatively, bounce the fill light off an adjacent wall to soften its effect.



A fill light has been placed to the right of the subject to reduce the harshness of the shadows caused by the key light

Back light

The third component in the three-point lighting system will help add depth to your portraits

The back light is the third element in what's known as the three-point lighting system. This system is often used to light scenes for films and television, and the techniques it employs can help to enhance a portrait too. The key and fill lights bring out the shape of the subject's face by adding shadows that create a sense of modelling, and the back light is used to mitigate the effects of the other lights by bringing the subject out of their background (see below for more information). Three-point lighting

is an effective way of enhancing what would otherwise be a flat-looking portrait. It helps add a sense of three dimensions to a two-dimensional photograph. Once you get the hang of three-point lighting you can experiment by removing specific lights from the set-up. Just using the back light on its own, for example, will give you an anonymous-looking silhouette with a strong outline. As well as adding definition to a portrait, lighting can also be used in a more creative capacity, as we'll see on the next few pages.



Barn doors

To limit the effect of the back light (or any of the three lights we've looked at so far), you can fit 'barn door' attachments. These adjustable metal flaps help channel the light on to the desired parts of your subject, and stop light spilling into areas where it isn't required.

USING A BACK LIGHT

Separate your subject from their background using a back light

Without a back light, there's a danger that the subject will merge with their background, thanks to shadows created by the key light. To solve this problem a back light is placed behind the subject. It's usually placed higher than the subject's head and angled down. This enhances the portrait by lifting out the edges of the subject's head and shoulders, separating them from the background. The back light also adds definition to the subject's hair by creating a subtle halo effect around the head. You can modify the intensity of any light by using a diffusion filter between the light and the subject.



The back light brings out detail around the edges of the subject, making him stand out from the background

Creative lighting

Get creative with your lighting techniques to introduce some atmosphere to your portrait



Lighting tips

For more tips on lighting set-ups for portrait work, check out Steve Bavister's book *Photographing People: Portraits, Fashion, Glamour (Pro-lighting)*. The ISBN number is 2880466520.

Three-point lighting helps to model a face in a subtle yet effective way. Each light in the three-point set-up contributes to the final effect of 'sculpting' the portrait in three dimensions. This is a great improvement on the flat and boring look of the camera-mounted flash.

There's a school of thought that says lighting in a portrait shouldn't draw too much attention to itself, as the job of lighting is to enhance a portrait in a natural way to bring out the best in the subject, and not to be a feature of the image in itself.

However, once you've mastered the principles of three-point lighting you can start breaking the rules and create more dramatic, atmospheric portraits. Try experimenting by turning off one or more of the light sources. Take away the fill light, for example, and you'll get that 'film noir' look from the key light, with the added benefit of the back light dramatically lifting the subject from the background. The back light on its own will accentuate the outline of the figure, creating an impression of anonymity and mystery.

GET EXPERIMENTAL

Break the rules of three-point lighting to add atmosphere

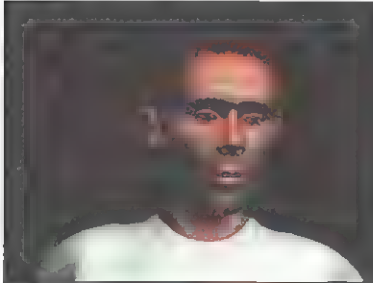
While one school of thought says lighting shouldn't draw attention to itself, another view says 'go to town!' Many film directors and photographers have a 'trademark' lighting style that's very recognisable. Ridley Scott uses light to fill empty space by using effects such as smoke. This causes the beams of light to become visible, adding texture and depth to the scene. We can use any light source, from a remote-controlled flash to a light on a pole, to change the mood of a portrait. On the next page we'll see that even the simple act of changing the height of a light source can dramatically alter the look and feel of our portraits.



Removing the gentle fill light creates a more striking and dramatic film noir-style image

Dramatic lighting

Change the mood of a shot completely, simply by adjusting the position of your light sources



You can add drama and mood to your portrait shot by repositioning your light sources. Placing the key light at a high angle, so that it's shining down on the subject, changes the way in which shadows are cast on to the face. This unflattering lighting angle can highlight features such as bags under the eyes. It also catches and emphasises the brow bone, creating the appearance of deeper eye sockets.



Placing a light directly below the subject's face creates a sinister effect. Most lighting that we encounter in everyday life illuminates people from above or from the side. We're used to shadows caused by light as it streams in from a window, or by light from an overhead bulb. Lighting from below is less familiar, so we tend to view this type of effect as unnatural, and even spooky.



Once we've created a dramatic-looking portrait by placing the light in a high or low position, we can use variations in the three-point lighting technique to enhance the effect. In this example we've kept the sinister effect created by a low-angled key light, but added a little detail to the shadows using a conventionally-placed fill light. This helps us read our subject's facial expressions.



Finally we've added a back light to our sinister-looking portrait. This enables us to lift the character out from any background details to give them more presence in the shot. Even though we're using three-point lighting, the mood of the final shot looks quite different from the portrait on page 67, thanks to the low angle of the key light.



Creative control

For more creative control over your lighting set-up, shoot in a darkened room or studio to eliminate contamination from other light sources. You can buy heavy black curtains to block out external light; you can then introduce light sources one by one, and experiment with them to see how they affect the look and mood of your portraits.



Master the theory

We're using illustrations so that we can accurately demonstrate the effect of different lighting techniques. Once you've mastered the theory of three-point lighting, try faking the effect in Photoshop using the techniques described at the end of this chapter.

Lighting gels

Take a tip from movie directors and use coloured light to enhance your portraits



Filters

Check out www.jessops.co.uk to see what filters are available for your camera. There are plenty to choose from, including colour correction filters and ones that create a UV effect.

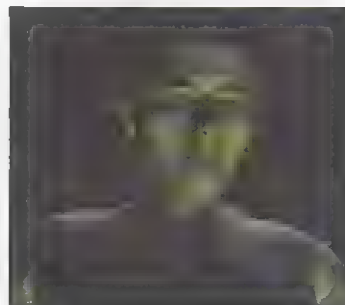
As we've seen previously in this chapter, lighting can make or break a portrait. It can also be used to change the mood or tone of the shot, to create a more dramatic effect. We can go one step further with our creative use of lighting by introducing colour. By placing gels over our light sources we can bathe the image in a wash of colour. This enables us to create stylised and atmospheric portraits. A splash of red can create a sense of danger, while a baleful green combined with a low-angled key

light is perfect for creating a ghoulish, Halloween-style portrait. Directors such as Dario Argento achieve a distinctive cinematic look through the use of coloured lighting. In his classic horror film *Suspiria*, Argento used red, green and blue gels to create an eerie wash of colour to complement the spooky, wailing incidental music and the gory onscreen action. Colour and lighting elevated Argento's films above the work of his fellow filmmakers, by giving scenes an added sense of drama.

GELS AND FILTERS

Alternative ways to add colour to your shots

As we discussed above, lights with coloured gels attached to them can completely change the look and feel of a portrait. If you don't have access to coloured gels you can alter the colour of a shot by placing a coloured filter over the camera lens. Filters can subtly warm up or cool down a shot, or can be used more creatively, to dramatically tint a shot red or green for example. If you don't have a lens filter, you can always add a tint to the image in Photoshop by using the various options in the Image > Adjustments menu. Check out Chapter 5 for different ways of using colour to enhance your portraits.



A green-tinted gel over a low-angled key light puts your subject in the mood for Halloween!

Natural lighting

An alternative to lighting set-ups is to make the most of available natural light sources

We've looked at how you can use studio lighting kits to illuminate your subjects as an alternative to crude flash lighting, but not everyone has access to this sort of equipment, and it can be expensive, so we need to think of alternative ways to light our portraits.

Sometimes we'll want to shoot portraits on location, so that we can place our subject in a more interesting environment. When we shoot outside the studio environment we can lose much of the control over lighting that we have in a

studio. Lighting kits come in all sorts of shapes and sizes, and some are portable. However, you might find yourself in a location where it's not practical to use lighting kits. If you're shooting in a busy street passers-by could trip over trailing cables and topple your precious lights from their stands. If you're in a remote location there might not be a power supply handy. It's in situations like these that it pays to use available light, and you can still apply the principles of three-point lighting using natural sources.



Reflector

Create a natural fill light effect by using a reflector. Position the subject so that sunlight is illuminating their face from an angle. Use a reflector (a large sheet of silver material) to bounce daylight on to the other side of their face to fill in the shadows caused by the natural key light.

AVOIDING FLASH

Use available light when possible to avoid a bleached-out look

On page 64 we featured a portrait of a child in a games arcade. In that example we used the camera's built-in flash to illuminate the child. This gave the image a flat and colourless look, as there were no shadows on the face to provide definition. We could, however, have taken the shot using the available light in the arcade. This would have cast shadows on to the face, giving it definition and shape. The coloured lights from the games machines would have added depth and variety to the portrait, making it more interesting. When shooting in bright sunlight, think about using the sun as a natural key light, and place your subject at an angle to it.



Avoid having your subject face the sun directly; the resulting shadows will model the details in their face

Faking light

We can easily reproduce the effects of three-point lighting in Photoshop



Flat lit.jpg

Use our flat-lit illustration to practise faking the effect of a key and back lighting in Photoshop. You can then apply this technique to any dull, flat-lit portrait to give it more depth and definition.

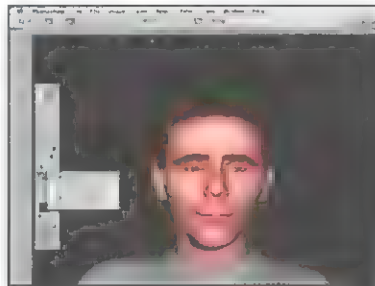


If you don't have access to lighting equipment, remote-controlled flash guns or lighting gels, don't worry; you can turn to Photoshop to add different lighting effects to your portraits. In this walkthrough we'll take a flat-lit image and add lighting to give it more shape and depth. The techniques we'll use can be applied to any portrait shot. Open your flat-lit shot, or use the one on the CD.

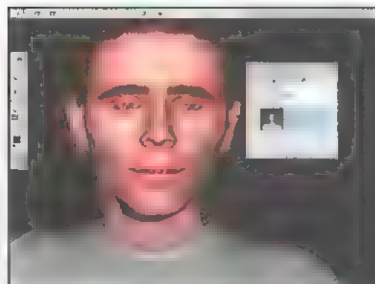


Fine-tune the path

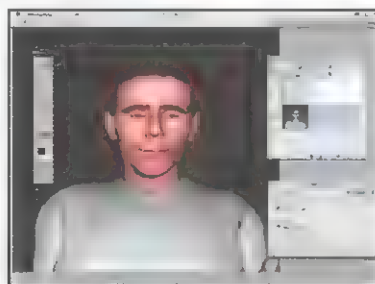
In this exercise we created and activated a path without going to the Paths palette. If you do check out the Paths palette you'll see that a path thumbnail has been created. You can use the Direct Selection Tool [A] to fine-tune the shape of the path if required.



The image has been evenly lit from the front. To fake the presence of a key light, we'll need to create the shadows cast by a key light. Select the Pen Tool (P). Make sure that it's set to draw a path in the options bar, and not a filled vector shape. Our key light is going to be lighting the subject from the left of the image, so we need to place our fake shadows on the right. Create a new layer called Shadow.

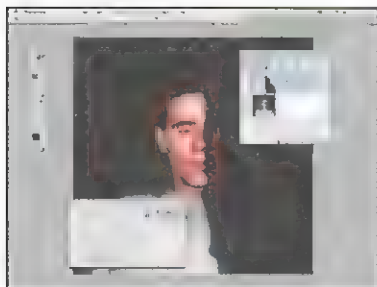


On the new layer click with the Pen Tool to place anchor points on the right side of the face. Create curved lines between the anchor points by dragging the mouse as you place each point. Try and get the path you're creating to follow the contours of the face. A smooth and flowing curve will help to create a more believable shadow than one with sharp, jagged lines.



Draw a path to define the areas where you want to add shadows. Complete the path by clicking the mouse to place the last anchor point on top of the first. The anchor points will be replaced by a solid line. Right-click inside this line to activate the Pen Tool's pop-up context menu. Choose Make Selection. Choose a Feather Radius of 6 pixels. This will give the shadow a nice soft edge.

Faking light continued

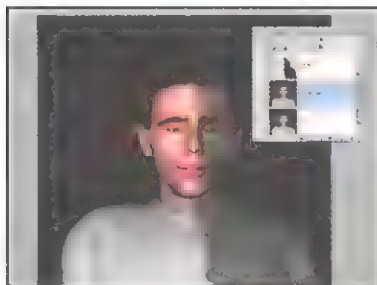


Once you're happy with your key light shadow path, go to **Edit > Fill**. Select black as the fill colour. This will fill the path with black, but will apply a soft edge to the filled selection because of the large Feather Radius value that you set in the previous step. Hit **[Control]+[D]** (**[Command]+[D]** on a Mac) to deselect the path selection.

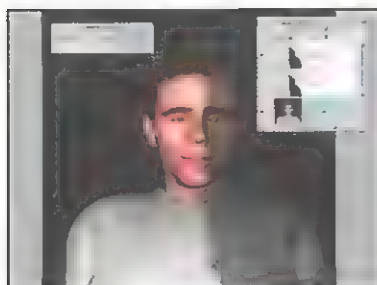


Be subtle

Remember: less is more. It's easy to overdo any special effect and spoil the illusion you're trying to create. If in doubt, make your fake shadows more transparent, rather than less.



Go to the Shadow layer and set the layer blending mode to **Soft Light**. This will darken parts of the portrait on the layer below, but preserve the colours. Reduce the opacity of the Shadow layer to make the effect more subtle. Duplicate the Shadow layer, and set the duplicate layer's blending mode to **Normal**. Reduce the opacity of this layer even more for a subtle shadow effect.

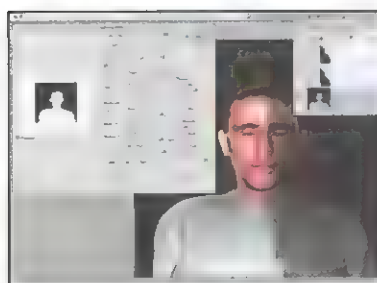


Now to fake a back light. Set the Magic Wand to a tolerance of 6 and click to select the black background on the original portrait layer. This will select the outline of the subject. Make the selection tighten around the subject's outline by going to the main menu and choosing **Select > Modify > Expand**. Expand the selection by 12 pixels. Right-click in the selection, and set Feather to 6 pixels.



Shadow colour

Shadows aren't different versions of grey; they're actually darker versions of the colour that they're cast on to. This is why we use the Overlay blending mode in step 2 to darken the layer below the shadow layer, while still preserving the existing colours.



Go to **Filter > Render > Lighting Effects**. In the Lighting Effects window drag the default light so that it's pointing down at the figure from above. Don't worry that the whole figure looks overexposed in the preview window. The selection we've made will ensure that only the edges of the figure will be illuminated, to fake a back light effect. Click **OK** to see the finished result.

Chapter 7

CREATING THE PORTRAIT YOU ENVISAGED

If your portrait doesn't turn out quite the way you planned, you can use Photoshop's powerful toolset to tidy up and enhance it to create the perfect image

We've seen how Photoshop can help us to dramatically enhance our portraits by enabling us to trim away fat, hide freckles, change hair and eye colour and even create a perfectly symmetrical (and supposedly more attractive) face. Such techniques are used by image editing professionals to produce enhanced, more attractive version of portrait subjects.

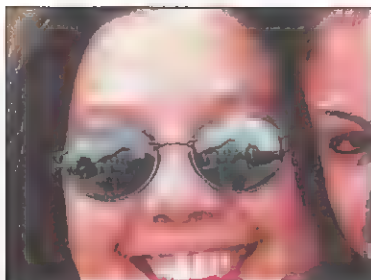
Removing eye bags, touching up make-up or adding a fake tan are the sort of enhancements that are routinely employed to create more appealing images to adorn magazine covers or advertising posters.

Some people might argue that by

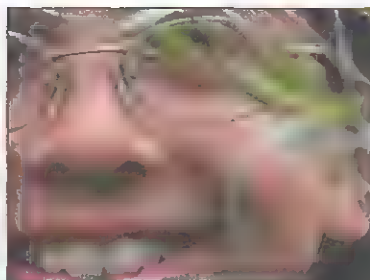
engaging in this type of image manipulation we're guilty of presenting a false impression of our subject. However, creating likenesses that flattered the subject was something that even the earliest portrait painters indulged in, and image manipulation has also been practised since the very earliest days of photography.

Truth and beauty

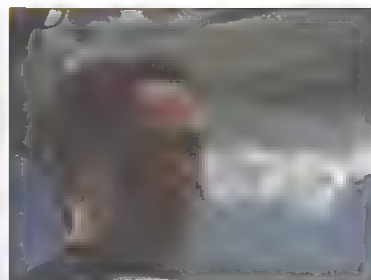
However, some manipulation techniques are more subtle than others. In this chapter we'll look at ways to enhance our portraits without artificially altering the subject's appearance. We'll preserve



Page 76 Replace unwanted reflections with a more interesting image



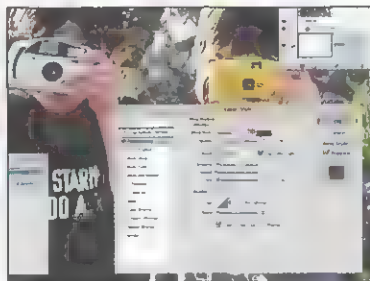
Page 77 Restore hidden image elements by cloning pixels



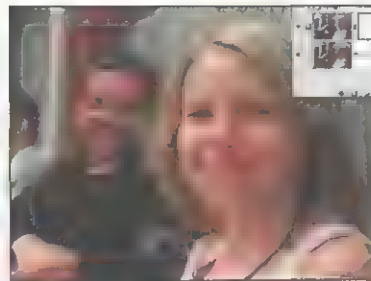
Page 79 Replace a boring background with something more exciting



Page 80 Quickly focus on important areas of your image using the Crop Tool



Page 81 Use layer styles to enhance your portraits by adding borders



Page 82 Fake a depth of field effect to draw attention to your subject

the integrity of the subject's identity, while improving the shot in other, more subtle ways.

Almost-perfect portraits can be spoiled by a variety of factors. As we press the shutter to capture our carefully-framed shot, we might not notice our reflection in the subject's glasses, or we may be unaware of the lamppost that's sticking out of our subject's head. Fortunately, Photoshop enables us to perform a host of repairs and corrections that can improve a portrait while leaving no trace of our pixel-pushing handiwork. With a bit of care and attention we can remove unwanted elements, or even replace an entire

background, without anyone noticing that the image has been manipulated.

Keep it real

We can't be accused of compromising the integrity of a portrait by simply cropping or painting-out unwanted elements. And, if we do the job well enough, we'll have portraits that we can display proudly in our living room and forget that we ever digitally altered, because they look totally natural. A good image editor should be able to leave no evidence to suggest that even one pixel in an image has been tampered with. So let's get to grips with some subtle portrait enhancement.

Removing reflections

Shiny surfaces such as glasses can reveal a tell-tale reflection of the photographer



Reflection.jpg

Practise removing the unwanted reflection of the photographer by opening this source file from our cover CD. Use the techniques described in the annotated screenshot to subtly edit the image.

When we look at a movie, we don't want to be reminded that the action is staged, and therefore artificial. A shot of the film crew reflected in a window or the shiny surface of a passing car is enough to shatter the illusion that what we're watching is real. Reflections can also draw attention to the way a photograph has been set up and created, shifting the focus from the subject of the portrait to the mechanical process used to capture the shot. Fortunately, Photoshop has all the tools we need



'Say Cheese!' The reflection of the photographer, and the flash from his camera, detract from this fun portrait

to remove the unwanted reflection of the photographer, and replace him with something less distracting.

REPLACING A REFLECTION

Select the inside of the lenses using the Magnetic Lasso. Set the Width to 5 pixels. Click to place some of the anchor points manually if the tool gets confused.

Use a soft-edged white brush to spray reflective highlights on to the new reflection for added realism.

The layer mask for the inserted reflection is not linked to the main layer (the chain icon is missing between the layer and the mask), so you can scale and transform the inserted reflection to reposition it within the lens.



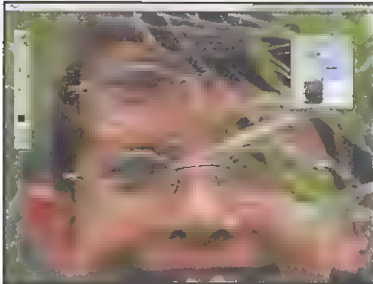
Go to Filter > Distort > Spherize. Type in a value of 73% and set the type to Normal. Click OK. This will create a realistic distortion for the new reflection.

Place the brushed-in reflective highlights on a separate layer, and reduce the opacity of the layer to keep the effect subtle.

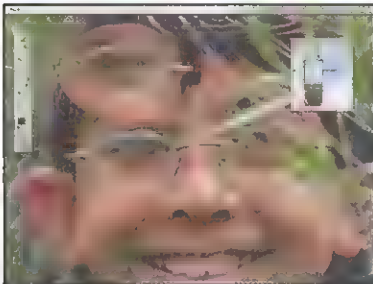
Copy some detail from another image, then select Edit > Paste Into. This will create a new layer with a mask that displays the new image only inside the selected area.

Removing unwanted elements

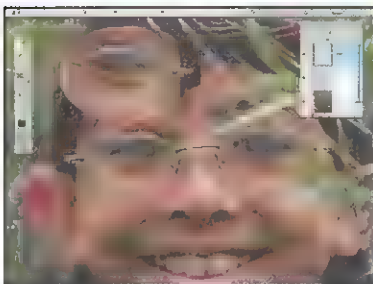
Cut the grass using the Clone Stamp Tool, and perform a digital eye transplant



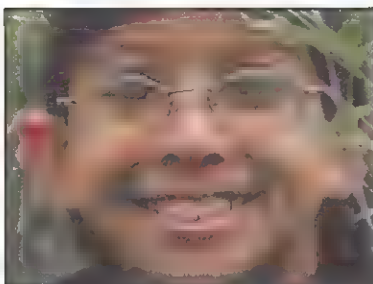
This potentially-decent portrait is spoiled by the grass obscuring part of our subject's face. The problem we face in revealing the obscured eye on the viewer's right is that too much pixel information has been hidden by the grass. We need to salvage some pixels from the eye on the left. Select the visible eye using the Elliptical Marquee Tool. Copy and paste the eye into a new layer.



The copied eye is a mirror image of the one we want to replace. Select the copied eye's layer. Go to the main menu and choose **Edit > Transform > Flip Horizontal**. Now we've flipped the eye it's suitable for repairing the missing section of the boy's face. Create a new layer in the Layers palette. Select the Clone Stamp Tool and make sure that **Use All Layers** is selected in the options bar.



Make sure that you're cloning detail on to the new blank layer. Click **[Alt]** to sample the boy's horizontally-flipped iris. Use a soft brush tip and keep the tip quite small (about the size of his iris). Spray the sampled eye pixels on to the area obscured by grass. Be careful not to spray any of the top rim of his glasses from the sampled eye on to the new layer.



Now you're ready to start work on cloning the glasses. The trick is to make the cloned frame align with the existing frame on the right of the boy's face. Click to sample part of the frame at the bottom-right corner of his specs. Carefully spray this sample into the appropriate position on the glasses frame on the right. Sample little and often to repair the hidden eye effectively.



Separate layer

Because we're cloning our pixels from the original layer on to a new layer, we can easily erase our repair work if we make a mistake, and start the process again.

Working with layers provides us with many ways to re-do a tricky image editing job if we fail on the first few attempts.



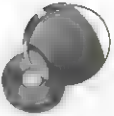
Go with the grain

*Once you've finished cloning pixels from the good eye to repair the hidden eye, make the cloned pixels match with the rest of the image by adding a little grain. Go to **Filter > Noise > Add Noise**.*

Set the Amount to 1%. Set the distribution to Gaussian. This will create a subtle hint of picture noise in the repaired areas.

Changing backgrounds

Put a subject in more interesting surroundings by mastering a variety of selection techniques



Grounded.jpg

Practise combining a variety of Photoshop's selection tools to quickly remove and replace an unwanted background. Use this image to follow the walkthrough on the next page.

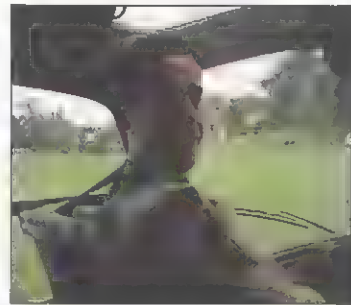
We can't always control every factor when we're taking portrait shots on location. We might manage to get a flattering shot of our subject in a boring location, or a poor shot (perhaps our subject has their eyes closed) in a more interesting location. Some locations offer once-in-a-lifetime backdrops, such as sights visited on a holiday abroad. For example, you may have intended to get a memorable shot of your other half posing against the backdrop of the Taj Mahal, but not been able to get a decent portrait

because of all the other tourists jostling to have their photos taken. Or perhaps you took a helicopter flight over the Grand Canyon, but forgot to get one of the passengers to photograph you while you were in the air, and only got a shot of yourself posing while the helicopter was on the ground. Thanks to Photoshop you can place your portrait subjects against any backdrop that you choose. The secret to successfully isolating your subject in a shot is to choose the right tool for the job.

THE RIGHT SELECTION

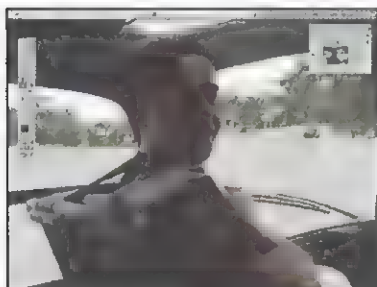
Analyse an image so that you can choose the right selection tool

Photoshop offers you many ways to change the background in a portrait shot. The Magic Wand, the Magnetic Lasso, the Pen Tool and the Magic Eraser all offer different ways of isolating your subject from their background. Each tool is particularly good at tackling specific jobs. The Background Eraser can remove large selections of similar pixels with a click, which makes it good for removing featureless skies, but is less effective on crowds of people. On the following page we look at how you can combine a variety of selection tools to tackle different sections of our source image. We'll then composite-in a more interesting background.

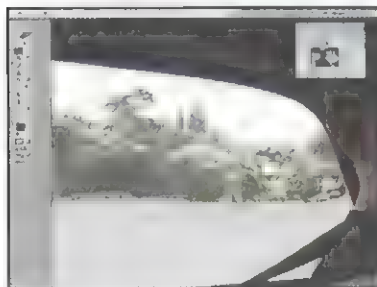


Combine the might of Photoshop's selection tools to get this helicopter off the ground

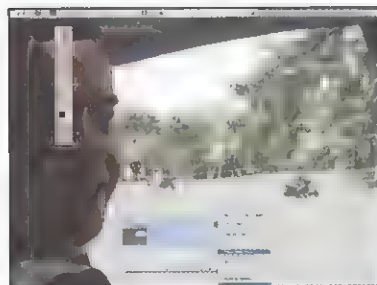
Combine the Background Eraser, Pen Tool and Magnetic Lasso to remove a background



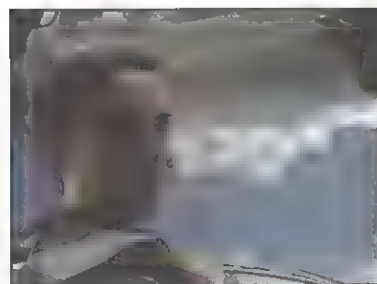
1 This image has a detailed background seen through the helicopter windows. Select the Background Eraser and turn off Contiguous, so the tool will select and delete large selections of sampled colour from the whole image. Set the Tolerance value to 12 and click on the green grass. Click a few times until you remove as much grass as you can without erasing any green inside the cockpit.



2 To remove the detail from the window on the left, select the Magnetic Lasso. Set the tool's Pixel Width to 5. Click to start selecting the top of the curved window; the tool will place anchor points as you follow the curve. When you get to the empty section of the window hold down [Alt] and click to switch to the Polygonal Lasso. This will enable you to quickly complete the selection.



3 For the main window choose the Pen Tool. Click to place the anchor points exactly where you require them. Drag as you place a point to create a curve between that point and the previous one. This is a good way of selecting curves on the side of a face. When the path is complete go to the Paths palette. Right-click on the thumbnail and choose Make Selection. Set a Feather radius of 1 pixel.



4 Once you've made your path selection hit [Backspace] to delete the unwanted pixels. Add the new background on a separate layer and place it beneath the cockpit layer. Use the standard Eraser to remove any flecks of colour that were missed by the Background Eraser. Reduce the saturation of the sky background a little, so that it doesn't overpower the darker foreground layer.



Path shortcuts

Instead of right-clicking on a path's thumbnail to get the pop-up context menu, click on the shortcut icons at the bottom of the palette. The Load path as a selection icon saves you from having to access the context menu, and speeds things up.



Clouds.jpg

Once you've combined the different selection tools to delete your unwanted background elements, add this cloud source image to the scene to place your subject high in the sky.

Cropping

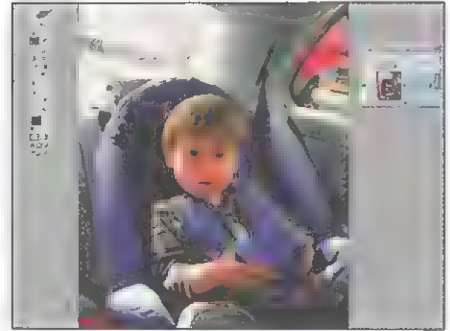
A simple way to enhance a portrait with the minimum of effort is to use the Crop Tool



Cropping.jpg

Practise your cropping skills on our source image to emphasise the subject by losing unnecessary background details, such as the overexposed view from the car's rear window.

The job of a portrait is to present the subject in the best possible light. Unwanted elements such as passers by can spoil an image, or the framing might be less than perfect, causing the subject to appear off-balance. A common problem is that the subject is too far away from the camera, so they're dominated by their surroundings. All these problems can quickly be resolved using the Crop Tool [C]. Cropping helps focus our interest on what matters. Thanks to the high resolution of today's digital cameras



There's too much space above this youngster's head. We can use cropping to help make him more prominent in the picture

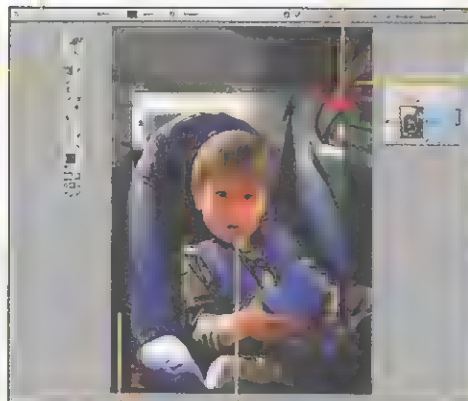
we can crop a large photo to focus on a small, but relevant, detail without a big drop in image quality.

CLEVER CROPPING

If you want to crop a group of images and keep them all the same size, you can type a fixed height and width value into the options bar before you start cropping.

The Crop Tool lives on its own in the toolbox. Press [C] to select it instantly.

Photoshop displays the areas that are going to be cropped as a darker version of the original layer.



Draw around the area that you want to crop. Resize the selection using the handles at the corners and edges of the crop.

If you click and drag outside the cropped preview window you can rotate the crop to correct tilted shots.

You can reposition the pivot point of the crop so that you can rotate the crop using a corner as the axis, rather than the centre.

Creating borders

Enhance and protect your portraits by using Photoshop to create attractive borders

Placing a plain or decorative border around a portrait helps to present it in a visually-striking manner. When a portrait is viewed on a wall, or on a website page, a border will help to isolate it from its competing surroundings, so that the viewer can focus on it without being distracted. As well as cosmetically framing a shot, borders also perform the more practical function of protecting a printed copy of an image. As a print is handled over the years the edges can become creased and damaged. The border

is designed to bear the brunt of this wear and tear, while leaving the precious portrait itself undamaged.

In these digital days we tend not to bother about borders very much, because so many of the photos that we see are viewed on a computer screen. But we can still enhance our printed or web-bound portraits by creating borders in Photoshop, using the layer styles function. A border will help to protect a printed version of a portrait, while also presenting onscreen images in an attractive and eye-catching way.



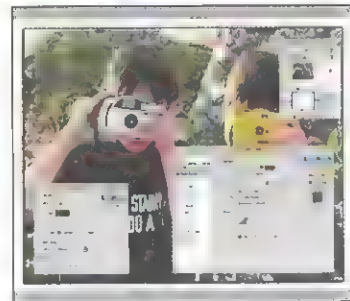
Source files

Add a border to your own portraits using the layer styles technique described on this page, or use one of the images kindly submitted by readers of Digital Camera Magazine to practise your skills on.

YOU'VE BEEN FRAMED

Create a border to draw attention to your portrait

Adding a border to a portrait is a straightforward matter in Photoshop. First crop the sample image from the CD to balance the shot (there's too much detail on the right, as you'll see when you open the image). Use the Transform Tool to scale the image down a little to create space around the edges. Create a new layer and fill it with white. Place it under the portrait. Double-click on the portrait layer's thumbnail in the Layers palette to bring up the layer styles window. Click on the Drop Shadow option. To make the image stand out even more, select the portrait and add a black 3-pixel width stroke around its edge.



Make your portrait stand out from its surroundings by using layer styles and stroking to add a border

Creative focus

Enhance your portraits by creating a depth of field effect to draw attention to the subject



In-depth information

For more information on the technical aspects of depth of field, plus visual examples of creative uses of depth of field check out www.dpchallenge.com/tutorial.php?TUTORIAL_ID=1.

When the human eye looks at several objects, they will all appear sharply focused because the eye instantly refocuses on whatever it looks at. Cameras don't work in the same way. They're unable to distinguish between what is and is not relevant in a shot, and have to be told what to focus on. Using depth of field is a very powerful way of drawing the eye to specific objects in a scene, and even specific parts of a subject's face. Depth of field effects are often used in cosmetics advertising

to focus the eye on the model's face and draw attention to the lipstick, eye-liner or whatever is being promoted. Although it's possible to set up a shot to create a low depth of field, many photographers prefer to fake the effect afterwards using Photoshop. This gives them greater control over what sections of the image will become the focus of attention. In the walkthrough on the next page we look at a powerful way to take control of an image's depth of field, using layer masks and the Blur Tool.

HOW DEPTH OF FIELD WORKS

The amount of light determines how much of an image is in focus

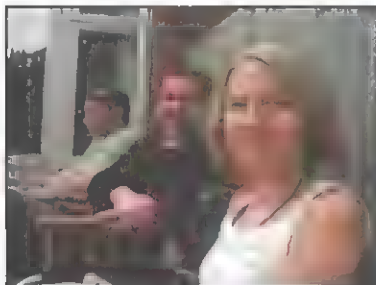
The more light there is in a scene, the greater the depth of field we can achieve. Shooting outdoors in bright sunshine allows us to use a smaller aperture setting, which gives us a deeper depth of field. Objects both nearer to and further away from the camera can remain in focus. When we take photographs in low light (in a studio setting for example), the camera has a lower depth of field because the iris has to open wider to let more light in. This results in parts of the image being in focus, and other parts of the photograph being out of focus. Depth of field can be used creatively, to add subtle details to the background of a shot.



Shooting indoors enables the photographer to open up the iris to create a narrow depth of field

Faking depth of field

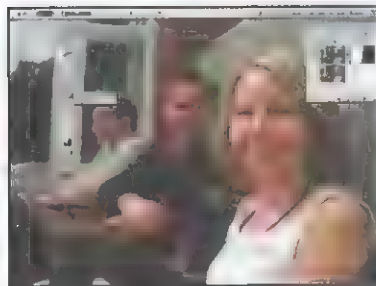
Follow our walkthrough to take control of your portrait's focal points entirely within Photoshop



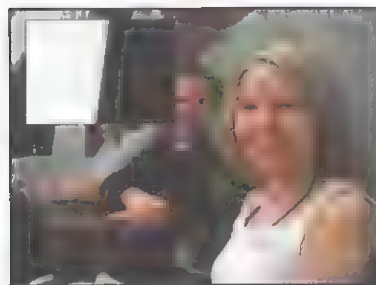
We'll fake a narrow depth of field from an image that has a wider depth of field. Technically the man in the middle is in sharp focus, with the foreground and background figures slightly out of focus. This is because the camera's auto focus setting selected the middle of the frame as its focal point. We can change the focal point to the girl in the foreground by faking a narrower depth of field.



Duplicate the layer by dragging its thumbnail on to the Create a new layer icon at the bottom of the Layers palette. With the new layer selected go to Filter > Blur > Gaussian blur. Here's where we fake a change in the camera's focal point. Set the blur value to a high setting like 8.5. We're not interested in the effect it has on the girl, only the men in the background.



Select the blurred layer's thumbnail and click on the Add a mask icon. Select the Gradient Tool (G), and make sure the toolbox foreground colour is set to black and the background to white. In the options bar set the Gradient Tool to a Linear gradient. Click on the layer mask thumbnail. Apply the Gradient Tool to the layer mask by drawing a short line from right to left next to the edge of the girl.



The darker section on the layer mask makes the corresponding sections of the blurred layer transparent. The whiter section of the mask keeps the corresponding parts of the blurred layer solid. The softly merging white to black line caused by the linear gradient causes a soft mix between the blurred and non-blurred layers, faking a lower depth of field and drawing the eye to the girl.



Experiment

Once you've mastered narrowing the image's depth of field, experiment with the Gradient Tool on the layer mask. Drawing from top to bottom or left to right will change the apparent focal point of an image.



Reset toolbox colour

Quickly restore the default foreground and background colours in the toolbox to black and white by pressing [D]. Swap them around by pressing [X]. You can then edit your layer mask and change the depth of field effect using the Gradient Tool (see step 3).

RESTORING AN OLD PORTRAIT IN PHOTOSHOP

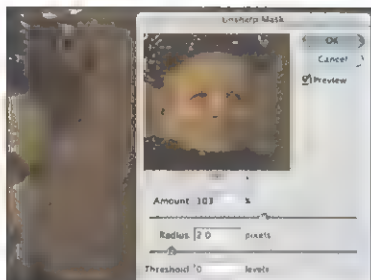
Now that you've had plenty of practice at enhancing portraits, you can turn back the years by restoring your old family photos to their former glory with the help of Photoshop

The Oscar Wilde novel 'The Picture of Dorian Gray' tells the story of a man who remains young thanks to the supernatural powers of a portrait he keeps in his attic. While Gray stays the same age, his likeness in the portrait ages and decays. We may not have a supernatural portrait to keep us looking young, but most of us do have piles of old photographs in our attic which remind us of how we, and our family and friends, used to look. As the years roll on we build up a collection of wrinkles and pile on the pounds, and our hair turns grey. All that's left to remind us of our youthful appearance is a few

snapshots in the family album. And while the likenesses captured in the images may be immune to the ravages of time, the pictures themselves are not.

Passage of time

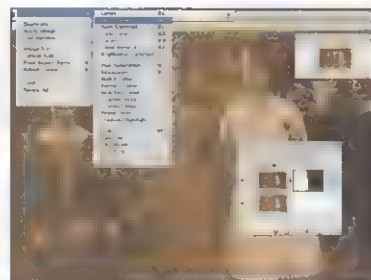
A photograph can show its age in many ways. If a cherished picture is kept in a wallet, it can deteriorate thanks to wear and tear. Creases and tears can erode a portrait, and stains from carelessly-placed coffee mugs can obscure important details. Even a picture that's hung safely on a wall behind glass can't escape the signs of ageing. Light from a nearby window can bleach a photograph, and cause it to lose its lustre. Our



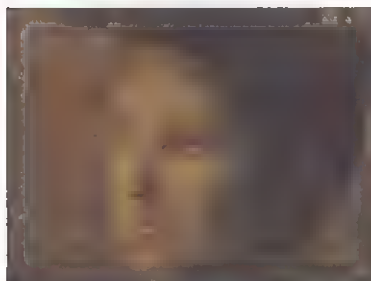
Page 86 Use the Unsharp Mask filter to bring a portrait into focus



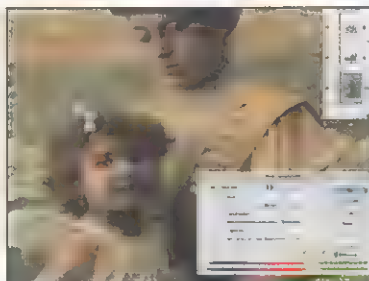
Page 87 Repair tears and creases using the Clone Stamp Tool



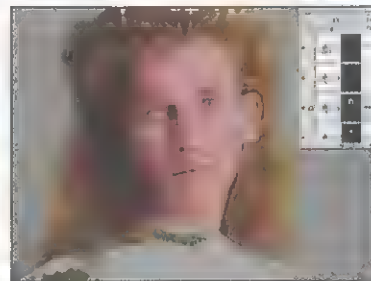
Page 88 Use image adjustments and a layer mask to restore faded areas



Page 90 Replace missing detail by transplanting undamaged pixels



Page 92 Use adjustment layers to restore faded hand-tinted photographs



Page 93 Colourise your monochrome photos to give them a new lease of life

digital photographs are safer than traditional photographic prints because they're stored on our computer as binary information. The ones and zeroes that make up our digital images will never change, allowing us to preserve them indefinitely (unless, of course, we suffer a massive computer crash, which is why you'll have your images backed up on a CD!).

Roll back the years

We can protect our pre-digital family photos from further deterioration by bringing them into the computer using a scanner. Once they've been converted into a digital copy, not

only can we halt the ageing process, but, thanks to Photoshop's powerful toolset, we can renovate the image and effectively return the portrait to its original condition. Creases can be removed, washed-out images can be adjusted to return their contrast, and missing information can be replaced (with a bit of lateral thinking, as you'll see on page 90). Thanks to Photoshop and its pixel-pushing abilities we can create a portrait that looks younger, sharper and as good as new. Death finally caught up with Dorian Gray as his portrait decayed, but if he'd had access to the wonders of Photoshop the story might have had a very different ending!

Sharpening soft images

Bring your scanned images into focus using Photoshop's sharpening filters



Unsharp Mask

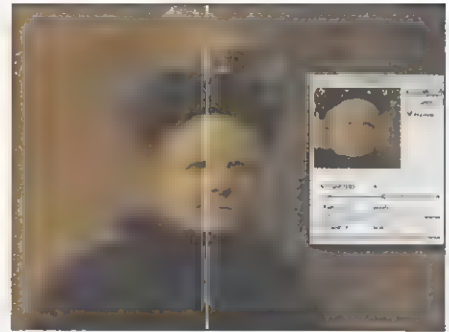
You may have puzzled over why a filter that sharpens an image is referred to as 'unsharp'. The phrase, as is the case with many of Photoshop's tools, comes from traditional photography techniques. In this case a soft negative image was overlaid on a sharp positive image to increase the sharpness of the edges in the final image.



Wait until the end

Since the Unsharp Mask filter works by increasing contrast, you should apply it to your photograph at the end of the restoration process. Otherwise, any other adjustments you make could exaggerate elements introduced by the Unsharp Mask.

Early cameras required the subject to remain motionless for some time, because of the long exposure needed to capture the image. This would often result in a blurry picture caused by the subject moving slightly. You may also find that some of your pictures are out of focus. When you scan in your old family photo you may introduce new problems; if the photograph isn't pressed firmly against the glass pane of the scanner you may end up with a soft-focused image, due to an incorrect focal length between the



The Unsharp Mask filter's settings offer greater control over the sharpening process by adjusting the contrast between light and dark pixels

image and the scanner head. All these factors can lead to a soft or blurred-looking shot.

USING UNSHARP MASK

SCANNER – Many scanners apply a sharpening filter to images. Turn off any sharpening presets in the scanner's preferences.

SHARPEN – The Sharpen and Sharpen More filters sharpen the edges in an image by increasing the contrast between adjacent pixels.

UNSHARP MASK – Filter > Unsharp Mask gives you much greater control over your re-focusing work. Experiment with the Threshold setting. This looks at differences in tone between adjacent pixels.

AVOID ARTIFACTS – Unsharp Masking can introduce unwelcome elements into the image such as exaggerated picture noise. Always keep an original, untouched layer in case you need to start again.

SCREEN AND PRINT – What might look too sharp onscreen could still print properly. The results of the Unsharp Mask filter often look more dramatic onscreen than they do in print.

Tears and creases

Repair physical damage to the edges of old photographs using the Clone Stamp Tool

Unless your predecessors were organised enough to mount their photographs in an album, most old pictures will have ended up in a drawer or shoe box, occasionally being dug out to show the current generation what their relatives looked like. Even album-mounted photos weren't immune to accidents, as the glue that kept them in place could fail, causing them to fall out of the album. Pictures can be damaged in all sorts of ways after decades of handling, and it used to be the case that once an image was



Photoshop's powerful Clone Stamp Tool is perfect for tackling ripped-edge problems affecting old images such as this one

torn there was nothing you could do about it, but thanks to Photoshop we can repair rips, tears and creases.



Torn.jpg

Use the image on the CD to practise using the Clone Stamp Tool to repair this photo's torn edges. You can also use this image for the technique demonstrated on the next page.

REPAIR DAMAGED EDGES

Once most of the repair work has been done, disguise any obvious brush strokes by reducing the Clone Stamp's opacity and spraying sampled pixels over problem areas.

The Clone Stamp is all we need to tackle damaged edges. The trick to a neat repair is to sample an undamaged area close to the rip.

This picture has been scanned at a slight angle. We can repair the edges either before or after we use the Rotate Tool to straighten up the image.



Before commencing repair work, duplicate your original layer by dragging it on to the Create a new layer icon. This will enable you to start again if you make a mistake.

Once you've sampled a healthy section of your picture's edge, spray with the tool to extend existing undamaged areas over damaged sections.

This is an easy job to tackle using the Clone Stamp alone, as the image information we need can be easily gathered from adjacent areas.

Restoring faded areas

Use masks to restore parts of this image that have become washed-out and faded



Torn.jpg

This image has an uneven fade due to the ravages of time. A layer mask will help restrict contrast adjustment to the sections that need it.

The image we repaired on the previous page has also faded over the decades. Unfortunately it's not an even fade – the left of the image has faded more than the right – so we can't just slap on an Auto Contrast adjustment. We need to be able to control the amount of image adjustment in specific areas of the image. Before you begin adjusting the image's contrast, double-click on the layer thumbnail to unlock it. Then hit [Control]+[T] ([Command]+[T] on a Mac) to activate the Free Transform Tool. You can then rotate



We can use a layer mask and the Image > Adjustments menu to correct the uneven fade that's spoiling this image

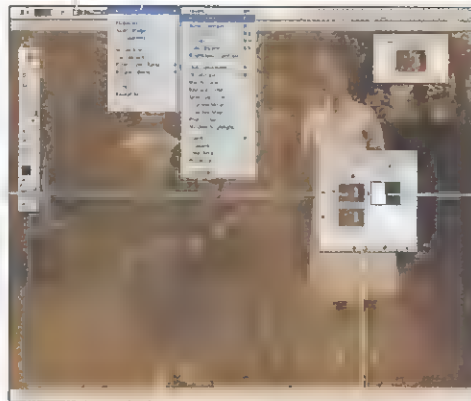
the image so the verticals align at 90 degrees, to correct the tilt caused by the scanning process.

USING MASKS TO MIX BETWEEN LAYERS

1 Select the Gradient Tool. Make sure it's set to Linear gradient in the options bar.

2 Duplicate the original layer and place the duplicate above the original layer. You can then edit the copy, and blend it with the original.

3 The image's tilt has been corrected using the Free Transform Tool [Control]+[T]



4 With the top layer selected, go to Image > Adjustments > Auto Levels. This will increase the contrast of the layer as a whole.

5 Draw a gradient on the mask to blend the contrast-corrected left section of the top layer with the right-hand section of the original layer below.

6 With the top layer selected, click on the Add a mask icon.

Fine-tune your fade

Continue to fine-tune faded sections of the image using the Burn Tool

On the previous page we saw how the photograph's contrast was fine in the right-hand side of the image, but had started to fade and look washed-out towards the left of the shot. We duplicated the image on to a new layer, and increased the contrast of that layer. We then mixed the two layers together using a Linear gradient on a mask, so that we had an image with balanced contrast. The white section of the mask kept the left half of the contrast-adjusted layer solid, while the black section of the mask

allowed us to see through to the right half of the original image in the layer below. Layer masks are great ways of enabling us to selectively hide or show parts of an adjusted layer, making them invaluable tools in the war against the signs of ageing. But, although the layer mask technique helps give the overall image a balanced contrast, there are still mottled areas of faded detail that we need to tidy up to make these parts of the image looked less washed-out and flat. This is a job for the Burn Tool.



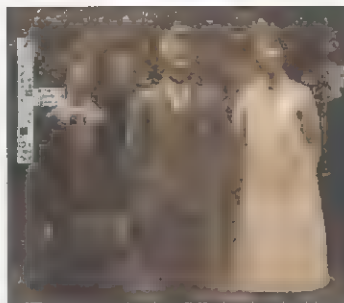
Artful dodging

Apply the Dodge Tool to the faces and hands of the people in this portrait to brighten them up a little. This will help to make these important features stand out from the drab and featureless sepia background.

USING THE BURN TOOL

Mimic traditional darkroom techniques to darken faded areas

When developing prints in a darkroom, a photographer will mask certain areas of the photographic paper by placing card between the light source and the exposed paper to decrease contrast in specific areas. The traditional darkroom skills of dodging (lightening) and burning (darkening) have been incorporated into Photoshop's toolbox as the Dodge and Burn tools. In our example photograph, the woman on the left still has areas of faded detail. Use the Burn Tool on a reduced opacity setting to gently darken any remaining uneven areas. Keep the tool's range options set to Midtones, so that you don't darken any existing highlights.



Use the Burn Tool set to a low opacity to gently darken any remaining faded sections of the image

Replacing missing detail

Carefully use the Clone Stamp Tool to replace missing pixels in areas of detail



Revert

If things go horribly wrong at some stage of your repair work, go to **File > Revert** (or hit **F12**) to restore the image to the last saved version.

Repairing the ripped edge at the bottom of the photograph on page 87 was a fairly straightforward job. There were no particularly detailed areas to repair, so it was easy to shift similar pixels from adjacent areas to cover the tear. But wear and tear can also occur in the middle of a photograph and obscure important details, such as part of a face. We can perform a pixel transplant using existing facial details to repair areas that have faded or been damaged. In the example here, the photo's surface has become scratched over



We can repair the damaged area over this woman's left eye by transplanting similar pixels from her right eye

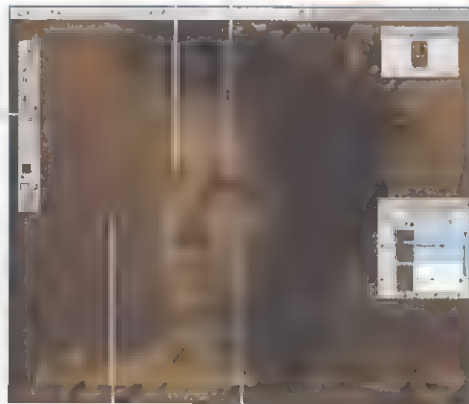
the woman's left eye. Luckily, her right eye will provide all the information we need for a transplant.

EYE SURGERY

To repair the woman's left eye, sample her right eye with Clone Stamp Tool. Hit **Caps Lock** to bring up some crosshairs, so you can select the pupil accurately.

Emphasise the subject's slightly faded, washed-out eyes by using the **Burn Tool** to darken them a little.

Use the **Clone Stamp Tool** on the areas outside the face to repair the beginning of the scratch.



Spray the sampled, undamaged eye over the damaged pupil using a small brush.

For safety, do your editing on a copy of the original layer. See the top tip in the sidebar for more information on undoing mistakes.

Use the **Healing Brush** to repair the jagged scratch on the woman's cheek by sampling and spraying some adjacent pixels on to it.

Removing blemishes

Tidy up your restored portrait by removing stains and spots with the Healing Brush

As you work through this book you'll see that the Clone Stamp and Healing Brush tools make a powerful double act when it comes to enhancing new portraits and restoring old ones to their former glory. The trick to faster and more effective portrait restoration is to know when to use which tool. The Clone Stamp Tool is perfect for daring pixel-transplant operations where missing information (such as the damaged eye on the previous page) has to be copied and transplanted from similar pixels.

This makes the Clone Stamp Tool especially good at repairing damage to detailed areas like the face. The Healing Brush Tool is not so good for repairing a detailed area, as it tends to blend the sampled area and the edges of the healed area. Because of the way it works you can still see hints of the damaged section. However, the Healing Brush is perfect for blasting blemishes out of existence in less-detailed areas. Just sample a clean section, turn off the Unaligned option and click to eradicate each unwanted speck.

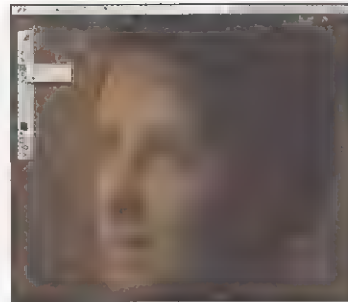


www.nedcc.org/leaflets/phocar.htm
Some signs of ageing in old photographs are caused by things that can be avoided, such as exposure to sunlight. Check out the site above to see what other things you can do to preserve your precious pictures from the ravages of time.

BYE-BYE BLEMISHES

Use the Healing Brush to remove dust speckles and stains

There are many reasons why old portraits have blemishes on the surface. Silver was used to prevent old photographs from fading, but like other metals silver can corrode and fade due to oxidation. Humidity and changes in temperature can also cause damage over the years, and mould can leave brown spots on the photograph, a phenomenon known as 'foxing'. Fortunately the Healing Brush enables you to quickly sample undamaged sections of the image and place them over blemished areas. You can even remove spots of dust that were part of the original print, thereby leaving the restored image actually looking better than the original.



Eradicate blemishes and even dust spots quickly and easily using the Healing Brush Tool

Brightening faded colours

Enhance your faded hand-tinted prints by restoring their colour information



Colour.jpg

Here's a scan of an old hand-tinted portrait. Practise enhancing the existing colours by using the adjustment layers shortcut in the Layers palette.

Before the advent of colour photography, photographers would occasionally hand-tint their monochrome shots to add a wash of colour to them. The success of this technique depended on the artistic skills of the photographer. Many shots had a crude skin tone painted on to the subject's hands and face, which spoiled the photo rather than enhancing it. Other hand-tinted photographs were more successful, but, like all things, these painted colours can fade with age. We can enhance colourised photographs by



Use Adjustment Layers to restore faded hand-tinted photographs to their former glory

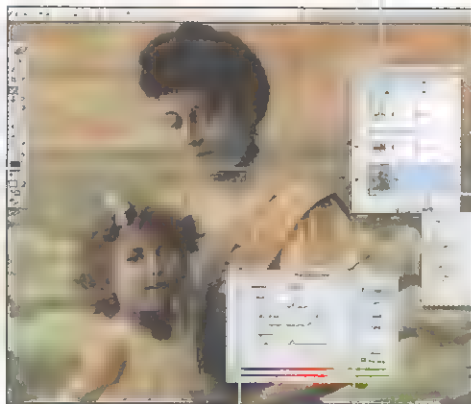
scanning them into our PC and adjusting their colour information to restore some life.

USE ADJUSTMENT LAYERS TO RESTORE FADED COLOUR

Turn an adjustment layer on and off using the eye icon to see the effect that it's having on the main background layer.

None of the adjustments you make alter the source layer permanently, so you have easy access to the original image.

Increase the Master Saturation first of all, then experiment with increasing specific image-related colours like cyan.



You can re-edit each adjustment layer by double-clicking on the layer thumbnail to open the relevant dialogue box.

A quick way to apply an adjustment layer is to go to the shortcuts icon at the bottom of the Layers palette.

Increase the existing colour's saturation using the Hue/Saturation dialogue box.

Adding colour

Recreate the effect of hand-tinting by digitally colourising your monochrome portraits



On the previous page we saw an example of a traditionally hand-tinted photograph. You can colourise your own monochrome prints using Photoshop. Open the Colourize.jpg sample file from the cover CD. Start by losing the image's sepia tint, by going to **Image > Adjustments > Desaturate**. Then go to **Image > Adjustments > Auto Contrast** to get nice strong blacks and whites.



Select a soft-edged brush. Double-click on the Quick Mask Mode icon in the toolbox, and click on **Selected Areas**. Make sure the **Foreground Color** is set to black by pressing [D] (for default). Use the brush to select the areas of skin. They will appear as red. Press [X] to swap the **Foreground Color** to white, and paint over the eyes to remove them from the selection.



Press [Q] to go from Quick Mask Mode back to Standard Mode. The areas that you painted in red will now appear as active selections, indicated by a marquee of 'marching ants' around the selection. Go to the **Layers palette**, click on 'Create new fill or adjustment layer' and choose **Color Balance**. Drag the top slider towards **Red** to add a tint of colour to the skin.



Repeat the same Quick Mask technique to select other elements in the image, such as the girl's eyes and dress. You can then use the same adjustment layer technique to change the selection to an appropriate colour. You can have as many adjustment layers as you like, enabling you to add colour to every element in the image.



Alternative selection techniques

We made our selections using the Quick Mask and a soft brush, but you could choose to make your selections using a variety of other techniques, from the Freehand Lasso Tool to the Magnetic Lasso.



Colourize.mov

Let us talk you through this fun process. Simply check out the QuickTime movie on the cover CD to see the technique in action.

Chapter 9

CREATIVE PORTRAIT TECHNIQUES

In this chapter:

- Find out how to create and apply adjustment layers
- Remove unwanted objects from images
- Create a knockout mask to place a new face on an image
- Take a photograph and make it look like a painting
- Remove wrinkles and other blemishes from a portrait
- Experiment with some artistic filters

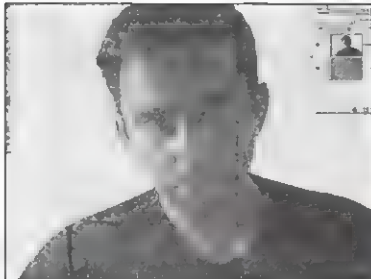
Push your Photoshop skills even further by using a whole range of tools to creatively enhance your ordinary portraits and transform them into something special

By working through this Focus Guide chapter by chapter you'll have built up a whole new arsenal of skills that will enable you to enhance your portraits in a wide variety of ways. Most of the techniques that you've learned involve using Photoshop's tools to manipulate your portrait's pixels and subtly enhance your images, without drawing too much attention to the fact that the image has been edited in any way.

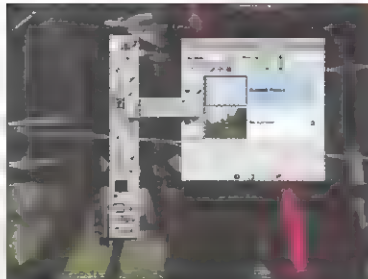
Pushing the boundaries

In this chapter we'll take the skills that you've developed and show you how to build on them to push the

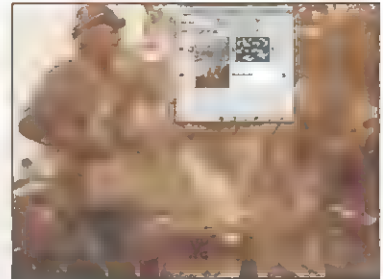
boundaries of portrait enhancement to a new creative level – so if you've jumped straight in at this chapter, welcome to the deep end of the pool! Over the next few pages we're going to move beyond standard portrait enhancement to start creating imaginative works of art from our ordinary photographs. We'll be using tools that you're already familiar with, such as the ubiquitous Clone Stamp. In previous chapters the Clone Stamp was used to repair rips and tears, or hide blemishes, without leaving any tell-tale footprints. In this chapter we'll have some fun with the Clone Stamp, using the tool to move



Page 99 Turn your portrait subject into stone using a displacement map



Page 101 Date images by removing modern elements using the Clone Stamp



Page 102 Fake a faded look to turn a modern picture into an old portrait



Page 103 Use the Vertical Grain filter to add scratches to your aged image



Page 105 Use the History Brush to combine a variety of paint-style filters



Page 111 Trim a hedge into a portrait by creating a stencil for the Clone Stamp

mountains and shape them into a giant human profile, for example.

New Tools

Traditional portrait enhancement can be rewarding, because if we do our work well no one should be aware that the portrait has been manipulated in any way. They should look at the portrait and not realise that the hair has been re-coloured, or that we've added a Pro Mist effect to soften the model's skin.

However, it can be fun to let people see what we can really do with Photoshop's tools, and creatively enhancing a portrait is the perfect way to show these skills off.

As well as building on your existing Photoshop image enhancement skills, we'll explore new ways to get creative in your portrait work by learning to use new tools. We'll use displacement maps to turn flesh and blood into stone, by combining a variety of source images together to create a statue effect. We'll even look at how to augment an image using computer-generated props to turn a humble human into a horned Halloween-style creature. We'll also look at how the History Brush can whip up a family portrait in the style of an Old Master, by enabling us to combine a variety of filters together on one image.

Turned to stone

Use a displacement maps and a textured file to turn a portrait into a convincing statue



CS and 7

Displacement maps can be used in both Photoshop CS and version 7. The two versions take a slightly different approach to applying the map, but we'll deal with that at the relevant step in our walkthrough.

People have been turning into stone for centuries in myths and legends. In Greek mythology one look at the hideous Medusa (the one with snakes for hair) was enough to immobilise the toughest warrior by turning them into stone. In the Bible, Lot's wife looked back at the destruction of Sodom and Gomorrah and was turned into a pillar of salt. The effect of being turned into stone isn't just confined to mythology; think of the preserved bodies of inhabitants of Pompeii. These hapless folk were caught in

the eruption of the volcano Vesuvius. Covered in volcanic ash their bodies gradually calcified over the centuries, creating grotesque human statues.

Being turned to stone isn't always a bad thing! For centuries statues have been created as a lasting tribute to important figures. In cities all around the country you'll find statues preserving the memories of great historical figures such as Winston Churchill and Horatio Nelson. We can convert our portraits into statues using Photoshop.

DISPLACEMENT MAPS

Create a 3D effect from a 2D image

A displacement map is a greyscale image. Photoshop pushes this image through a 2D source photograph to create a 3D effect. The different greyscale values of the displacement map cause different levels of distortion in the colour source photo. Over the following pages we'll use a portrait as a displacement map to distort a photograph of a stone texture. This will make the stone take on human form, creating a statue-like effect. We'll need to adjust the colour and levels of the portrait to create an appropriate displacement map. We'll also need to isolate the statue from the displaced image using the Pen Tool, and put it in a more suitable environment.



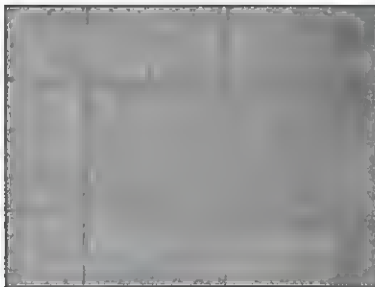
This greyscale displacement map was derived from a standard portrait, and used to distort a photograph of stone

Preparing source files

The first step in producing our human statue effect is to create a displacement map



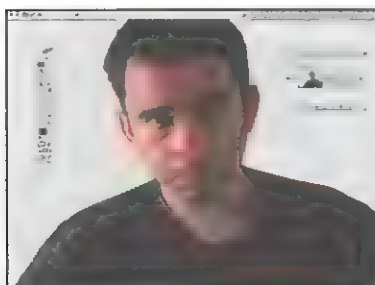
- 1 Start off by preparing the stone texture. Open the file *Stone.jpg* from the cover CD. We need to tidy this file up before displacing it to create our statue. Get rid of the red bricks at the right edge of the image by using the ever-handy Clone Stamp Tool. You should be a dab hand at using this tool by now, but check out page 13 for a refresher course if necessary.



- 2 The stones in this image are paving stones outside an office. You could photograph your own stone texture, perhaps using a moss-covered grave to create an ancient look for your statue. We could decide to Clone Stamp-out the lines between each paving stone to get a solid block of stone. However, the horizontal and vertical lines will help emphasise the displacement map effect.



- 3 Open the file that's going to become your displacement map. You can use our example from the cover CD, or immortalise yourself in stone by using your own photo. If you're going to use your own image choose a photo with a suitably statuesque pose (most statues don't have a big cheesy grin, for example!). A close-up head and shoulders shot will work best, and it shouldn't be too flat-lit.



- 4 You'll need to isolate the head and shoulders shot from the background (we don't want background objects to displace the stone texture) Use the Magnetic Lasso Tool to draw round the outline of the figure, and use Quick Mask Mode to tidy up the selection. Once the selection has been made, choose **Select > Inverse**. **Edit > Fill** the area outside the figure with white.



Statue.mov

Let us lead you through this creative walkthrough step-by-step. Watch the QuickTime movie to see and hear how we turn flesh to stone using the displacement map technique.



Stone.jpg and StatueSource.jpg

On the CD you'll find the two source files you need to follow this walkthrough. We'll create a displacement map from *StatueSource.jpg* and use it to distort *Stone.jpg* to create a 3D statue effect. We'll also use layer blends to complete the statue illusion.

Unveiling your statue

We need to make the displacement map a greyscale image before applying it



PSD only

When you save the altered image as a displacement map, you must save it as a Photoshop Document (PSD). This is the only file format that will work as a displacement map. Other file formats will appear greyed-out if you try to apply them.



1 Our displacement map needs to be a greyscale image for it to distort the stone texture correctly. Go to the main menu bar and choose Image > Adjustments > Desaturate to lose all the colour information in the image. Then save the image as Displace.psd. It must be saved as a Photoshop document (PSD); see the sidebar for more information.

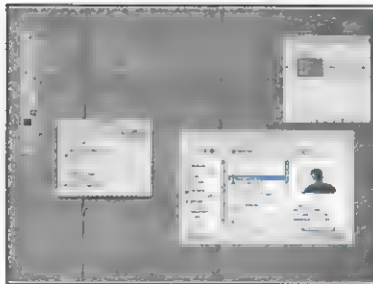


2 It's important that the stone source file and the greyscale displacement map are a similar size. Place the greyscale image on a new layer on top of the stone photograph. Edit > Transform > Scale the greyscale image so that it fits neatly on top of the stone image. Save the scaled-down greyscale layer as Displacement.psd. Restore the Stone.jpg image to a single-layered file.



Small steps

We could have entered larger values in the Displace dialogue box in step 3, instead of applying the Displace filter several times in step 4. However, applying the filter in smaller increments gives us greater control over the final result.

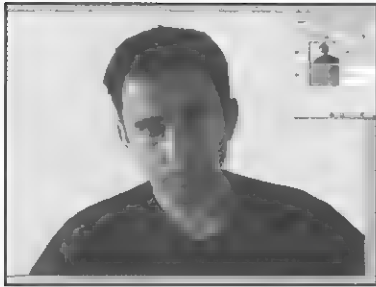


3 You're now ready to do some displacing. Select the Stone.jpg image. If you're using Photoshop 7 choose Select > All (CS users can skip that step). Go to Filter > Distort > Displace. In the Displace dialogue box that appears, set the horizontal and vertical scale values to 10. Choose Stretch To Fit and Repeat Edge Pixels. Click OK, and select the Displace.psd file you created.



4 When you first apply the greyscale Displace.psd to the stone texture you won't notice a huge difference, apart from a slight ripple in the stonework. Press [Control]+[F] ([Command]+[F] on a Mac) to re-apply the filter. Do this a couple of times for a more noticeable displacement effect as the greyscale portrait distorts the stone texture in its own image.

Now it's time to fine-tune the statue effect, and add a background to complete the image



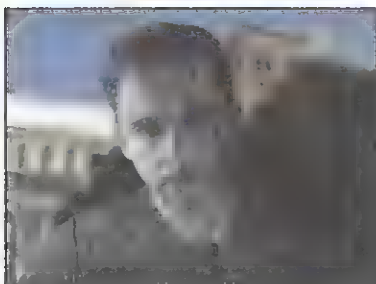
5 The displacement map has rippled the stone texture to follow the contours of the greyscale portrait image. However, this effect is not enough to create a convincing statue illusion on its own. We need to add the greyscale source image to the stone texture to see the human form more clearly. Copy the Displace.psd image, and paste it into the distorted stone image on a separate layer.



6 To add more definition to the displaced stone texture, select the portrait layer and set the blending mode to Overlay in the Layers palette. This combines the greyscale photograph and the stone texture together. By blending the portrait in this way we get the visual cues we need to add a more recognisable human face to the stone texture.



7 Select the greyscale portrait layer. Take the Magic Wand Tool and set its tolerance to around 7. Select the white background around the edge of the figure. Hit [Backspace] (or Edit > Cut from the main menu) to remove the white space. Unlock the stone layer. With the selection still active, delete the same area from the stone layer. You'll now have a human-shaped statue with a transparent background.



8 To finish off the scene, open the file Background.jpg from the CD and place it under the other layers. Apply a Gaussian Blur filter to the background to create a depth of field effect; we don't want the background distracting the viewer from the statue. Reduce the saturation of the background layer to help it blend in and complement the more earthy texture of the statue.



Unlocking layers

In step 7 we need to unlock the flattened stone layer before we can remove the person-shaped selection from the image. A quick way to unlock a layer is to double-click on its thumbnail in the Layers palette to turn the flattened image into a floating layer.



Extra definition

Add an extra sense of 3D definition to the statue by using the Burn Tool [O] to burn-in darker shadows at the right-hand side of the figure. You can also enhance the eyes and mouth a little by burning more detail into those features. Be subtle, and use the Burn Tool on a very low exposure setting.

Creating an 'aged' portrait

We can fake the appearance of an old picture using some modern techniques



Photo opportunities

Check the 'What's On' section of your local paper to find events where people re-enact events from times gone by. These events are great photo opportunities to gather source images for your creative work.

We used a variety of tools to remove blemishes, rips and tears to restore old photographs to their original condition in the last chapter. In this chapter we'll turn the process on its head, by taking a perfectly good modern photo and ageing it to make it look like it has been stored in a shoebox for years. It's well worth working through the previous chapter before you try out this ageing technique, as knowing what factors can age a photograph over the years will help you when it comes to making a modern shot

look old. You'll then be able to add foxing, variable faded areas, scratches, rips and so on to fake the tell-tale signs of ageing. You'll have seen scenes in movies where characters look at a photographs of themselves supposedly taken years ago. They might have their portrait added to a genuine vintage photo, and quite often elements from one image have a different grain and sharpness value from other parts of the image, giving away the fact that the image is a fake. We'll see if we can do a better job with Photoshop.

SOURCE IMAGES

Choose an appropriate source image to create an effective fake

To create a convincing old photograph from a modern digital shot we need to choose our source image carefully. It needs to be free from modern elements that wouldn't have existed at the time the image we're going to create was supposedly taken. Modern sunglasses would look a little out of place on a would-be Victorian gentleman, for example. In this walkthrough we'll fake a documentary-style photograph of the American Civil War. Our modern source image was taken at a historical re-enactment event. Anachronistic elements such as the plastic fence can easily be hidden using the Clone Stamp Tool.



This modern shot will make an ideal fake archive image of the American Civil War once we've aged it

Adding ageing effects

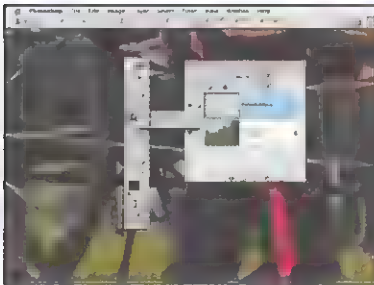
We can pile on the decades in minutes using a variety of tips and tricks to age our image



1 Every year at historic Kirby Hall in Northamptonshire, enthusiasts re-enact battles from a variety of historical periods, ranging from ancient Rome to World War II. Of course we couldn't use a Roman scenario for this walkthrough, as cameras were centuries away, but they had turned up just in time to capture some American Civil War action, so we plumped for that era.



2 The contents of our source image need a bit of attention before we start the ageing process. Many of the men are wearing modern spectacles, although these items won't be too problematic once we've 'distressed' the picture. The main problem is the green plastic fence that's designed to keep members of the public from being trampled by horses or blown up by cannon fire – it has to go.



3 Grab the trusty Clone Stamp Tool and create a new transparent layer in the Layers palette. Select Use All Layers in the options bar. You can now clone pixels from the main layer, and place them on the transparent layer. This makes it easier to delete mistakes made using the Clone Stamp, as all the cloned pixels will be on a separate layer from the original source image.



4 Click and hold down [Alt] to sample a section of pixels to clone over the green plastic fence. Select your sampled pixels logically. Remove the green fence that overlaps the trousers, for example, by sampling just below the fence and extending existing details such as the red piping over the unwanted pixels.



Pictures in distress

When furniture makers want to turn a piece of modern furniture into something resembling an antique, they 'distress' the item to fake the signs of ageing. This may involve eroding the surface with sandpaper and staining the wood to give it a worn appearance. We can distress our photograph's pixels, to make them look older than they really are.



www.english-heritage.org.uk

Check out this link to discover what sort of historical re-enactment events are going on near you. Many stately homes organise these kinds of events, and they can provide fabulous photo opportunities.



Adding ageing effects continued

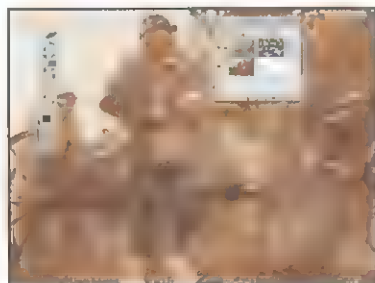
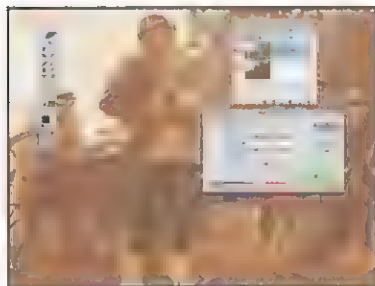
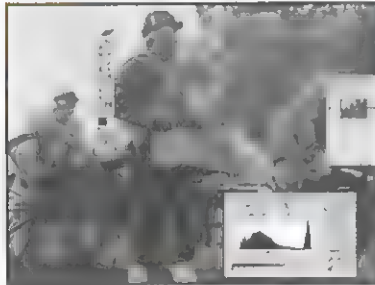
»

They didn't have colour photography in the 1860s, so let's remove all colour information



Organic prints

Some old prints were made using egg white and salt as part of the process. Pictures created with organic compounds like these are especially prone to fading and looking washed-out, due to a lack of contrast between black and white.



Save your layers

Before you merge your layers together in step 5, you might want to save a layered version of the file, in case you need to fine-tune any of your cloning work. Indeed, it's good practice to save different versions of your Photoshop document, as this allows you to access earlier versions if you make mistakes later in the project.

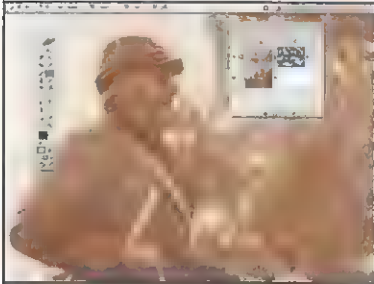
5 When you've removed all traces of the fence, merge the two layers together. As this is supposed to be an old print, lose all traces of colour information by going to the main menu and choosing Image > Adjustments > Desaturate. Wash out the contrast (see the sidebar to find out why) by choosing Image > Adjustments > Levels. Set the middle box in the Input Level section to 1.20.

6 As old black-and-white photographs age and decay, they often develop a warm sepia tint. Creating sepia-tinted photos using traditional chemical processes is quite a smelly job, but the effect is very easy to achieve using Photoshop. Go to Image > Adjustments > Color Balance. Set the values in the Color Levels boxes to +64, 0 and -83. Alternatively, you can experiment by sliding the faders.

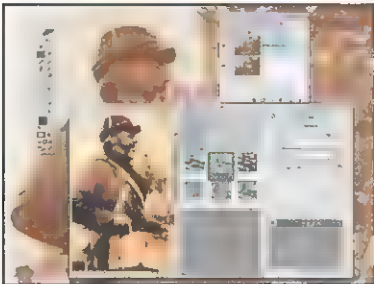
7 As we saw on page 88, some parts of an image can age more than others. Let's add a variable fade to this image. Duplicate the main layer by dragging its thumbnail on to the Create a new layer icon at the bottom of the Layers palette. Lighten the layer by going to Image > Adjustments > Hue/Saturation. Set Lightness to +30.

8 Create a variable fade by adding a layer mask to the new layer (click on the Add a mask icon in the Layers palette.) Select the mask thumbnail and go to Filter > Render > Clouds. Choose Image > Adjustments > Equalize to increase the contrast between the whites and the blacks. These greyscale clouds make parts of the lightened layer transparent, giving the image an effective mottled look.

We can age our image even further by adding some realistic wear and tear



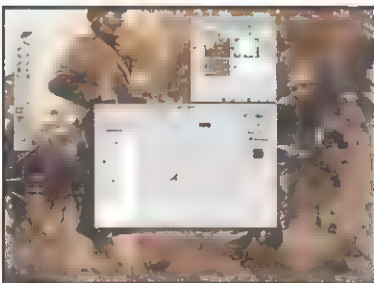
9 When you apply the cloud-generated layer mask to the lightened layer, it may cause random parts of the image to fade, and some sections to have more contrast. You might want to give facial details more contrast, as these are important parts of the picture. Cut soft holes in the lightened layer to reveal the darker layer below by spraying a soft black brush on the layer mask.



10 Link the two sepia layers together by clicking on the chain icon in the Layers palette. Combine them into one new layer by going to Layer > Merge Linked. Duplicate this merged layer. On the duplicated layer go to Filter > Texture > Grain. Set Grain Type to Vertical and increase the contrast to get strongly contrasting lines. We'll use these to create scratches to rough-up our photo.



11 Now we'll blend the scratches with the background layer to make them more subtle (see the sidebar on the importance of subtlety). Set the scratched layer's blending mode to Darken. This places lighter scratches in the darker sections of the image, giving the impression that parts of the photo's surface have been eroded or scratched. Reduce the opacity of the scratched layer to 41%.



12 To rough-up the photo more, we'll make it appear that parts of the surface have peeled away to reveal the card backing. Create a sepia-coloured background layer, and use a rough Chalk brush tip on the main layer's mask to hide parts of the image around the edges. Double-click the main layer's thumbnail to access the Layer Styles menu. Use Bevel and Emboss to add depth and enhance the effect.



Keep it subtle

It's very easy when applying digital effects like the Vertical Grain filter to go over the top. No single filter should dominate the manipulated portrait, or it will betray the fact that the image is a fake. If in doubt, reduce the opacity of a filtered layer to make it less noticeable. The combined effect of all the filters used in this walkthrough should be enough to fool someone into thinking our photo is genuine.



Finishing touches

Human contact can do much to age a photo. Dab some ink on your fingers, and dab some fingerprints on to a bit of paper. Scan these smudged prints into your computer and overlay them on your photo.

Paintings from photos

Create your own painted portrait from a photograph using Photoshop's History Brush



Making history

As you'll see in the walkthrough on the next page, you can record a particular event, such as the use of a filter, as a History snapshot. You can then jump back and forth through the History using the History Brush [Y] to pick and mix from different History snapshots.

Before photography was invented, the only way to have your likeness preserved for posterity was to fork out a small fortune for an artist to paint your portrait. This meant that only the rich could immortalise their image (unless you happened to catch the eye of a talented painter, like the subject of Johannes Vermeer's famous portrait *Girl with a Pearl Earring*). Even today, painted portraits are elevated above photographs because of the time, effort and skill it takes to capture a good likeness on canvas.

In movies we might see scenes featuring portraits of characters in the film – these will have been created by using packages like Photoshop. For example, the remake of *The Lady Killers* features several scenes in which a portrait changes posture and expression. It would be expensive and time-consuming to have an artist paint each version of the portrait in the traditional way, so the filmmakers used a package like Photoshop to fake the painted look from source photos. We can do the same with our own portraits.

HISTORY LESSON

Understanding the History palette will help us fake our painting

Photoshop's memory is limited to a fixed number of events, or History states. When you do anything in Photoshop, the event is stored in Photoshop's History palette as a state. When you reach the allocated number of History states set in the preferences, Photoshop starts forgetting the first few events it recorded. To make Photoshop remember more events go to **Edit > Preferences > General**, and increase the number of History states from the default setting of 20. The more states you add, the more you're asking of your PC's RAM. We set our History States section to 60. These states can be used creatively, as we'll see on the next three pages.



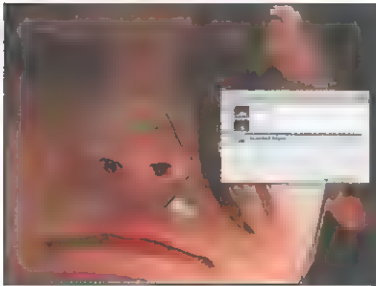
Get Photoshop to remember your every move by entering a higher value in the History States box

Paint a portrait

Apply multiple filters to build up your painting, and save each stage as a new History snapshot



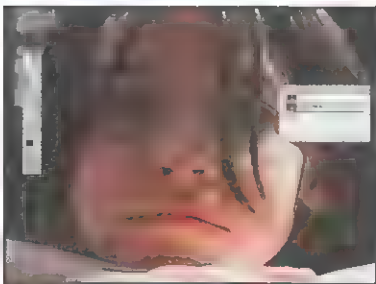
1 The great thing about the History Brush is that we can apply different filters to build up a painting with a variety of different brush styles. Start off by applying a filter in the usual way. We used **Filter > Brush Strokes > Accented Edges** to create dark lines around details like the mouth and eyes. Set **Edge Width** to 4 and **Edge Brightness** to 14. Create a more sketchy look by changing the smoothness to 8.



2 Now we'll record the document with this filter applied. Go to **Window > History** to open the History palette. At the top of the palette you'll notice an image thumbnail. This is a History snapshot of the document that was taken when the file was opened, before the filter was added. Add a new Snapshot of the image with the filter applied by clicking on the camera icon at the bottom of the palette.



3 Label the new snapshot to remind you of which filter it represents. We called ours 'Accented Edges'. Now you can use the History palette to move between the original document and the filtered version. Click on the original thumbnail to see the unedited version of the image. Click on the 'Accented Edges' snapshot to see the effect of the filter.



4 We're going to add new filters to the image and create new snapshots, but first a word of warning. If you close the file during this process, Photoshop will lose all records of the various History states relating to the file. This means that any History snapshots you've created will disappear too, meaning you'll have to start the process of applying filters all over again.



History.jpg

Give your own portraits a painterly makeover. If you've nothing suitable to hand, practise on this shot of my niece Charlie. She'll be happy to be immortalised in a thousand paintings!



States

When we refer to the document's 'state', we're referring to one particular moment in the document's history. Everything you do in Photoshop results in a new state being added to the History palette.



Paint a Portrait continued

»



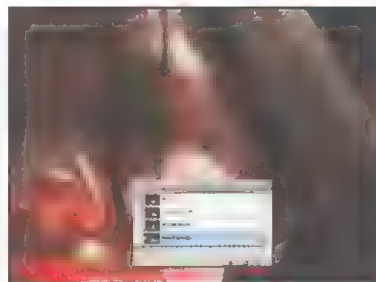
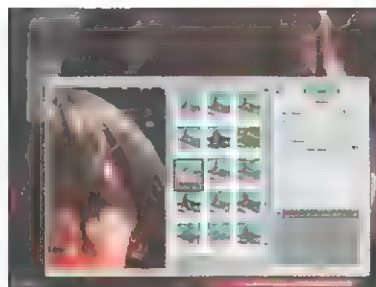
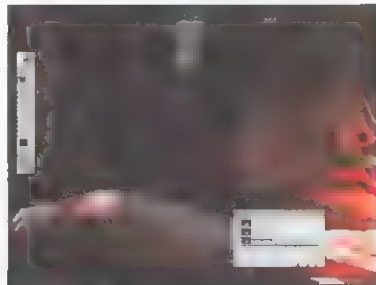
Filters in Photoshop CS and 7

This technique of using the History palette to take snapshots of filters works in both Photoshop 7 and CS. If you use version 7 don't be put off by our screen grabs of Photoshop CS's new Filter menu. All the filters we use are available in version 7 too.



Changing history

As we mentioned on the previous page, when you close a document you lose all records of the History states relating to that document. If you have to quit a file in mid-edit you can compromise by clicking on the 'Create new document from current state' button at the bottom of the History palette.



5 Now we'll create another version of the image and apply a different brush stroke style. Click on the original History snapshot thumbnail at the top of the History palette to restore the portrait to its unfiltered state. Then go to **Filter > Artistic > Watercolor**. Set the brush Detail to 9 and the Shadow Intensity to 1. Click OK to apply the filter.

6 Take another snapshot of the image with the new filter applied and label it Watercolor. This filter works well on items like the brick wall and the girl's clothing, but makes her face look blotchy. This doesn't matter, as later we're going to mix the different filters together to create something completely new. We'll be able to apply suitable filters to specific parts of the image using the History Brush.

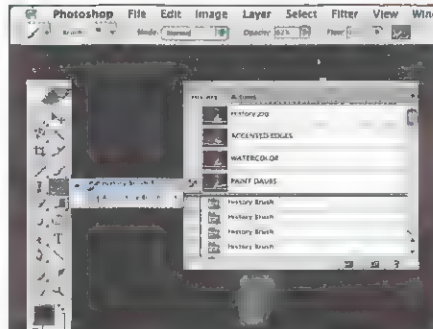
7 Click on the original snapshot thumbnail again to restore the image to its unfiltered state. Now we'll choose a filter to create an impressionistic, sketched-out look for the girl's hair. Go to **Filter > Artistic > Paint Daubs**. Set the Brush Size fader to 22. Change the Brush Type to Wide Sharp to simplify the details in the hair. Take another History snapshot, and label it Paint Daubs.

8 You should now have a History palette containing four History snapshots. The original snapshot is joined by three thumbnails recording the image with different filters applied: Accented edges, Watercolor and Paint Daubs. Click on the thumbnails to familiarise yourself with the different effect each History state has on the original photo.

Mixing the filters

Now let's combine the different filter effects to create our unique portrait

After the hard work of applying filters and generating History snapshots, it's time to have fun by combining different filters to create a unique-looking image. Think of the History palette as one of those wooden palettes that artists use to mix paint on. Instead of blobs of paint squeezed from a tube, you're going to sample different History snapshots, and apply them to various parts of the image. Click on the original History snapshot to see the unfiltered version of the image. Select the History Brush [Y] from



Use the History palette and the History Brush as the source of a variety of different paint effects



Pressure-sensitive

As you paint the different filters on to the image using the History Brush, use a pressure-sensitive stylus to interactively change the brush size for a more realistic painted look. Alternatively, use the bracket keys [and] to decrease or increase the brush tip size.

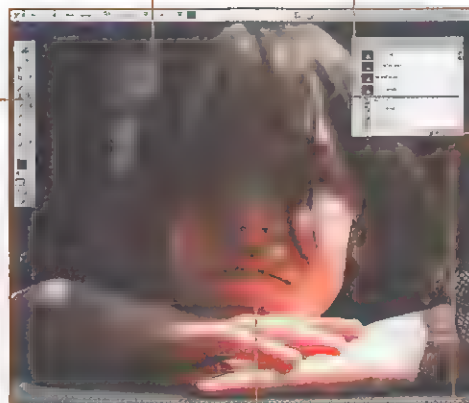
the toolbox, and see the annotated screenshot below to discover how to mix the different snapshots together.

MIXING FILTERS TOGETHER

With the Paint Daubs History snapshot selected, you can paint broad, impressionistic brush strokes into the subject's hair.

Select the History Brush from the toolbox.

Select the Accented Edges History snapshot to add dark outlines around the mouth, eyes and hands, to add definition to the portrait.



With the History Brush selected, click next to the snapshot of the filter you want to paint with. Be careful NOT to click on the history snapshot's thumbnail.

When you're happy with your painted look, generate a new document from the fruits of your labours by clicking here.

Select the Watercolor History snapshot with the History Brush and paint this filter style over the background details, and even parts of the clothing.

Augmenting a portrait

You can transform your portrait subjects into monsters by using digital prosthetics



www.alias.com

You can find out more about Maya by going to this site. You can even download a free copy of the Personal Learning Edition of the software, and have a go at creating your own 3D props.

Throughout this chapter we're venturing beyond merely enhancing portraits to give you an idea of what Photoshop is really capable of. Now we'll push the creative envelope even further, to give you a taste of what can be achieved by combining Photoshop with other packages. In TV shows like *Buffy the Vampire Slayer*, characters are regularly turned into monsters by having prosthetic appliances, such as demon horns, glued to their skin. We can use 3D modelling packages like Maya to

create digital prosthetics to transform our Photoshop portraits. Science fiction book cover artists can use Photoshop to take portraits of ordinary models and combine them with computer-generated props to turn them into sci-fi or fantasy characters. In the walkthrough on the next page we'll convert the portrait of an ordinary woman into a scary-looking demon by adding some CGI horns. As you'll see, there's more to mixing 2D and 3D than simply slapping the 3D elements on to a separate layer.

DIGITAL PROSTHETICS

We used Maya to create the 3D horns for our demonic portrait

There are dozens of 3D packages available that enable you to create fantastic graphics with which you can augment your portraits. One of the best is Maya, which boasts intuitive modelling tools and is fully integrated with Photoshop. We knocked out these 3D horns in about half an hour. They were rendered with an alpha channel, allowing us to remove the horns from their black background and add them to the Photoshop scene. You can set up lights in Maya to give the sides of the horns a shadow. Make sure you match the 3D light source with the light source in your Photoshop portrait, to help the components match up



Packages like Maya are great for creating 3D props. You'll find these horns on the CD, in the file *Horns.tif*

Merging 3D with 2D

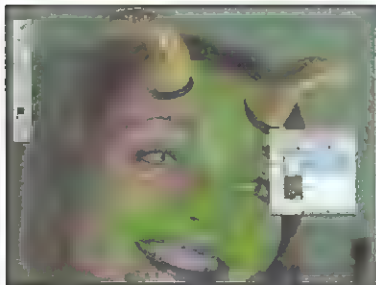
Use a variety of techniques to convincingly blend 3D props with your portraits



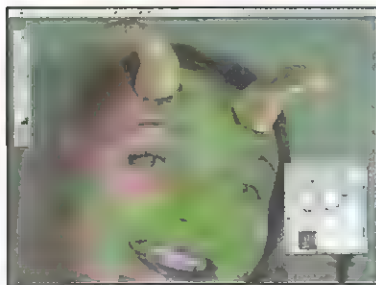
1 This walkthrough is primarily about adding 3D to 2D, so we won't dwell too much on how to create the other aspects of this image. The scales were created by using the Stained Glass filter. We then used the Displace filter to distort the scales to match the character's face (see pages 96-98, which cover the displacement map technique). You'll find a hornless version of the demon on the CD.



2 Open the file Hornless.tif and the file Horns.tif. Drag the horns from their file on to the scary portrait. They'll appear on a new layer. Hit [Control]+[T] ([Command]+[T] on a Mac) to activate the Free Transform Tool. Scale the horns down to fit into the image. Drag outside the tool's box to rotate the horns a little, so that they fit on the head at an appropriate angle.



3 Select the Magic Wand Tool and set the Tolerance to 10. Hold down the [Shift] key and click to add all areas of the blue sphere to the selection. The sphere was added to the 3D model to make the horns appear to be growing from a solid surface, and the sphere was coloured blue to make it easy to remove. Select Edit > Cut to remove the blue selection.



4 Right-click the Horn layer thumbnail and choose Select Layer Transparency. Create a new layer and Edit > Fill the selection with black. Place this layer below the Horn layer. Use Edit > Transform > Distort to fake horn-shaped shadows. Add a layer mask to the shadow layer and use a black brush to paint out the parts of the horn shadow layer that shouldn't be visible. This should anchor the horns on the portrait.



Where'd you get those peepers?
We created our demon's spooky cat's eyes using the technique demonstrated on page 43.



Digital dentistry
The freakish fangs weren't 3D props. We simply drew a fang-shaped selection with the Freehand Lasso Tool, then cloned the existing enamel into the selected area to extend the teeth. Only use 3D when there's no way to fake the effect in 2D.

Greater control

Use the Pen tools, marquees and lassos to fine-tune your Clone Stamp work



Limiting tools

Use selections to limit the areas affected by different tools. When selecting with the Magic Wand, use a marquee tool to limit the area that the Wand will work on. This will stop you inadvertently selecting similarly-coloured pixels in other parts of the image.

Throughout this book we've regularly employed the Clone Stamp as one of our most effective portrait enhancement tools. On page 49, for example, we used the Clone Stamp to trim the 'love handles' from a portrait subject. We removed the unwanted body fat by cloning and spraying pixels from the background to cover the selected areas. This would have been a tricky job to do freehand, as we might have inadvertently cloned over too many pixels. So we used the Pen Tool to create a 'fence' which constrained

the effects of the Clone Stamp; the tool was unable to affect pixels outside this selection. In that instance the Clone Stamp's area of influence was being limited to create a subtle yet specific shape. In the walkthrough on the next page we can use this technique on a larger scale, and in a far more creative way, to re-shape inanimate objects in our own image. We can go one step further and reshape a whole mountain in our image, or create the ultimate hedge topiary featuring the profile of our friends or family.

MOVING MOUNTAINS

Creating a portrait-shaped path helps you reshape any object

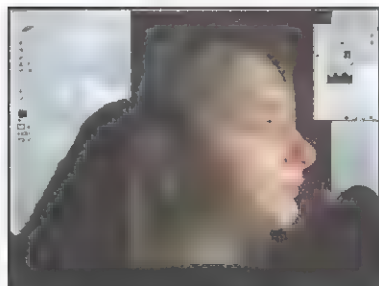
I once decided to create a mountain in the shape of a human face, but had no idea how to complete the task. However, I figured that if the Americans could carve their presidents' faces into the side of a mountain, Photoshop should enable me to go one step further and carve a mountain into the shape of a face. The most valuable skill I learned was to use existing pixels to create the outline of the face, and to use a path created from a portrait to limit and guide the Clone Stamp Tool and move the pixels into the correct place. Check out the walkthrough to see the technique applied to some creative hedge trimming.



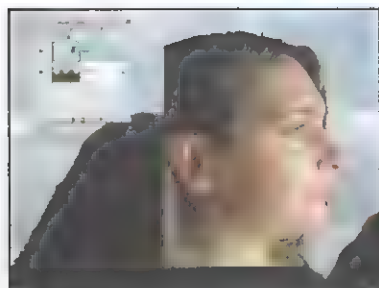
Use a Pen Tool path to accurately control the Clone Stamp and create imaginative portrait-based images

Creative portrait enhancement

Create a selection which will enable you to constrain the activities of the Clone Stamp



1 Open the file *Profile.jpg* and add it to the file *Tree.jpg* in a new layer, named *Face*. Scale the *Face* layer down so it overlaps the tree as shown. Reduce the opacity of the *Face* layer so that you can see the tree underneath. This will help you align the face and place it in a suitable position. We won't see the face layer in the final image. We'll use it to create a face-shaped path to control the Clone Stamp.



2 Select the Magic Wand Tool [W] and use it to select the burgundy area behind the girl's head. Don't worry if the selection is a little rough, as we're faking a hedge trimming effect. Edit > Delete the unwanted burgundy colour. Tidy up any missed bits of colour and stray hairs with the Erase Tool. Hit [Control]+[D] ([Command]+[D] on a Mac) to deselect the selection.



3 Right-click on the *Face* layer thumbnail and choose 'Select Layer Transparency'. Click on the Eye icon to hide the face; we're only interested in the face-shaped selection we've created. Create a new layer for the Clone Stamp to work in. Select the Clone Stamp, set to Use All layers. Sample a bit of hedge and spray it at the edge of the selection. It shouldn't stray outside the face-shaped area.



4 You'll find this technique is easier if you turn off the Aligned option in the options bar. Now you can use a specifically-selected area of the tree as the source of most of your cloned pixels. Clone the lighter parts of the tree and place them at the edge of the face. When you've finished filling the selection with leaves, deselect it and spray some darker leaves to join the back of the head to the tree.



Tree.jpg and *Profile.jpg*

Become a veritable Edward Scissorhands and use our source images to create your own people-shaped trees using the technique described in this walkthrough.



Topiary.mov

Our topiary pruning technique is demonstrated in full on the cover CD. Check out this QuickTime movie to follow the whole process from start to finish.

GIVE A PORTRAIT THE 'COVER GIRL' TREATMENT

In this chapter we'll use many of the skills and tools that we've explored throughout this Focus Guide to give our portrait subject a look that would grace the cover of any magazine

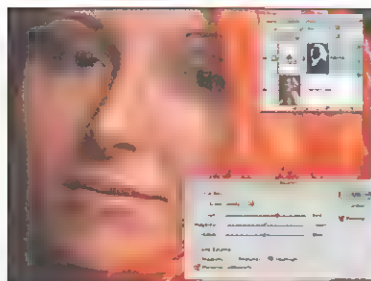
People are rarely satisfied with their looks. The desire to appear more attractive, or at least to conform with society's ideals of beauty, drives us to buy skin care products and hair colouring kits. When the winter months arrive we try to keep our skin tanned using creams and sunbeds. The pressure to look good feeds a multi-million-pound industry.

This desire to look our best gets even stronger if we're having our photograph taken, and this is an area that professional photography studios exploit. Having your portrait taken by an expert is expensive, because you're paying for the

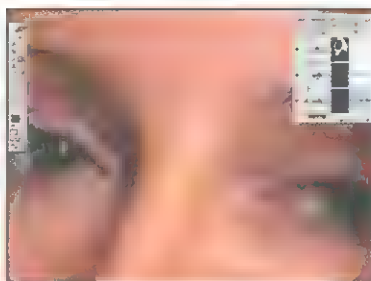
photographer's ability to flatter you by their use of lighting, composition and photographic techniques.

The professional look

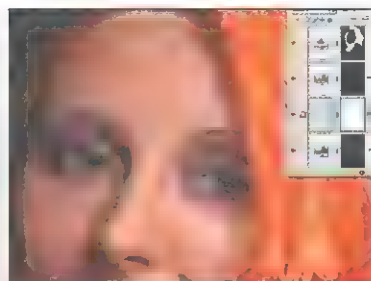
The techniques and tools that we've covered in this book will help you to create professional-looking portraits from your own source images using Photoshop. Our chapter on lighting should give you some ideas on how to set up the initial shot just as a professional would, which with a little luck will mean less correction and enhancement work later. If you don't have access to a lighting kit, we've explored how to position your subject to take advantage of



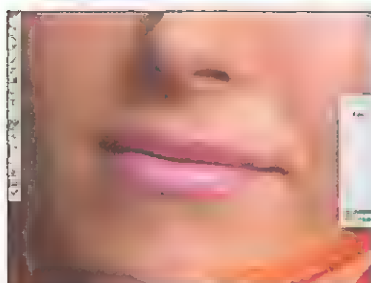
Page 114 Use a Quick Mask to isolate the subject's hair for re-colouring



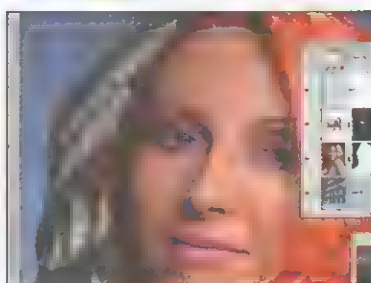
Page 115 Use a Hue/Saturation adjustment layer to alter eye colour



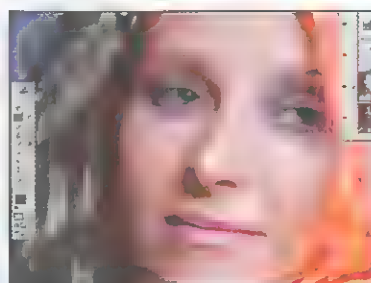
Page 116 Complement your model's looks by adding some make-up



Page 117 Use the Clone Stamp Tool to enhance the shape of the lips



Page 118 Transport the model from the studio to a more exciting location



Page 120 Add a glow to the image's highlights without losing any contrast

available light, and even seen how to fake different lighting effects entirely within Photoshop.

Throughout this Focus Guide we've explored many ways in which you can enhance a variety of different portraits. Some of these techniques are subtle and invisible, such as improving skin complexion by using the Clone Stamp and Healing Brush tools to remove blemishes and wrinkles. We've also covered some more noticeable enhancements, such as changing the colour of the hair and eyes and applying make-up, and even given our portrait subjects a fake tan (see page 59). Other enhancement techniques have been

even more dramatic, such as re-sculpting the body to create a manly jutting jaw or a slimmer waist. We've also looked at how to give portraits an atmospheric glow by simulating the effect of a Pro Mist filter on the camera lens.

Digital makeover

Working through this book should have developed your Photoshop skills to the point where you can take any portrait and enhance it using the appropriate tools. In this chapter we'll take a single photo and apply a variety of the techniques that we've featured to give our subject a 'cover girl' makeover.

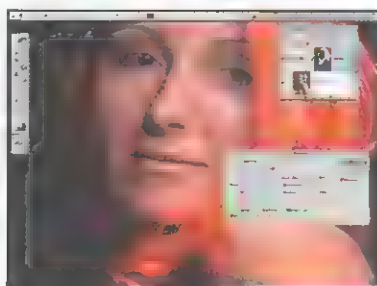
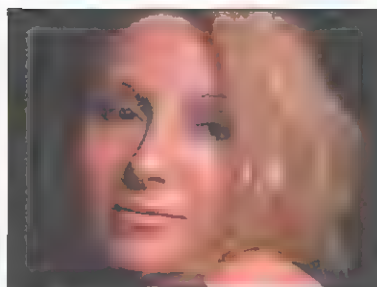
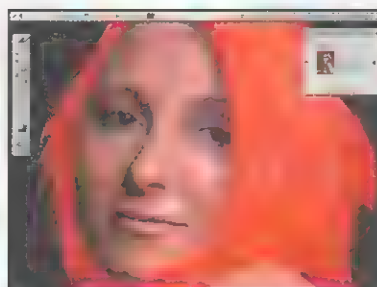
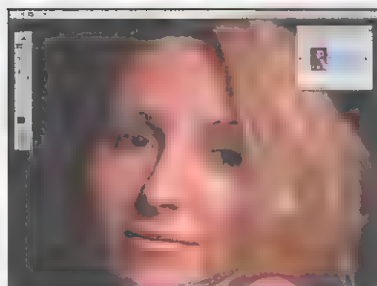
Bye-bye blonde!

Gentlemen may prefer blondes, but we'll go for a fiery redhead look for a change of style



Pop-up

In step 1 we chose **Select > Inverse** from the main menu bar. A quicker way to do this would be to right-click in the selected area, and use the **Select Inverse** command from the pop-up context menu.



X marks the spot

When using a white brush in step 2 to deselect the face and body, you may select some hair by mistake. Press [X] to swap the foreground and background colours around, and use a black brush to reselect the hair, so that it turns red.



You'll need to select the hair to 'dye' it. There are several ways to do this; you could use the Magnetic Lasso, but we decided to use the Magic Wand Tool [W]. Click with the Magic Wand to select the black background (hold down [Shift] to add all the black to the selection). Go to **Select > Inverse** to select the woman instead of the black background.



Hit [Q] to enter Quick Mask editing mode. The area containing our model will turn red, indicating that this is the selected area. Since we only want to select the hair, take a soft white brush and spray over the non-hair areas to remove them from the selection. Use the bracket keyboard shortcuts [and] to increase and decrease the brush size as required until only the hair is selected.



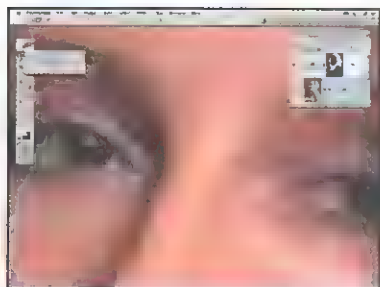
Press [Q] again to return to Standard editing mode. You can then see how the hair selection is shaping up. You can jump back to Quick Mask mode if required to tidy up any missed sections of hair, or any unwanted skin selections. Before you alter the hair colour, duplicate the main layer in case you need access to the original layer later.



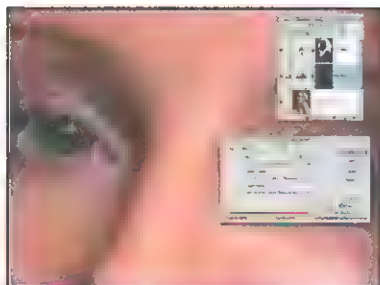
Select the duplicated layer. Make sure the hair selection is still active. Go to the adjustment layer shortcut in the Layers palette and select **Color Balance**. This creates a new adjustment layer with a mask that will affect only the hair selection. Increase the Red colour levels to 60 for the Midtones and 30 for the Highlights. Alternatively, to colour the hair using the variations window, see page 34.

Hello blue eyes!

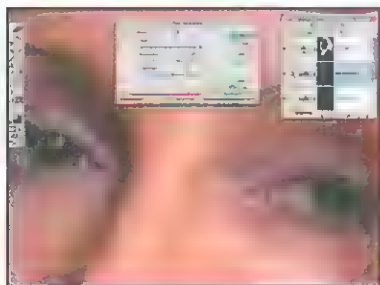
Red hair is often accompanied by blue or green eyes, so let's change our model's iris colour



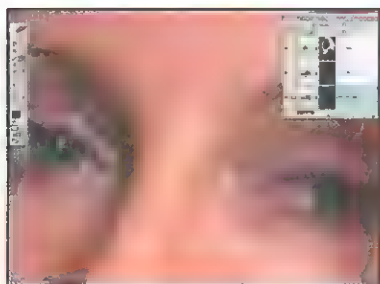
Select the Elliptical Marquee Tool by holding down the mouse button while the cursor is over the Marquee compartment in the toolbox and choosing the tool from the four options. Alternatively, hold down [Shift] and press [M] to toggle between the Elliptical and Rectangular marquees. Set the Feather option to 1 pixel. Select the left eye, holding [Shift] to keep the tool constrained to a circle.



With the eye still selected, create a Hue/Saturation adjustment layer. Slide the Hue slider to +153 to get a more bluey-green iris. Increase the saturation a little to enhance the eyes. To check that you're not creating an unprintable colour turn the Gamut Warning on under the View menu. Unprintable colours will appear onscreen as grey, so you can fine-tune the hue until you get a usable blue.



Repeat the above two steps to select the right eye. Use the same Hue/Saturation values that you used for the left eye. It doesn't matter that the re-coloured eyes are extending over the eyelids, as we'll fix this in the next step. Notice that each colour-corrected eye has its own adjustment layer. Label these layers Left Eye and Right Eye.



Now we need to remove the parts of the eyes that should be under the eyelids. Usefully, the Hue/Saturation adjustment layers have automatically created a layer mask for the eye selection. We can modify the masks to hide the unwanted sections of the irises. Take a soft black brush and paint on the layer masks to hide the parts of the re-coloured irises that should be hidden under the lids.



Fantastic feathering

If you decide to change the feather of the marquee selection after you've drawn it, right-click on it to bring up the pop-up context menu. Select the Feather option and type in a new value.



Easier on the eye

Remember, when selecting the iris in step 1, place the cursor at the centre of the pupil. Then hold down the [Alt] key as you draw the marquee, and the elliptical shape will expand from this centre point, rather than a corner. This will make it easier to select the iris.

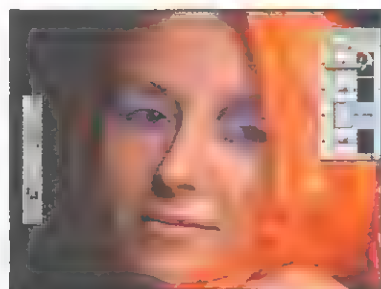
Make-up artistry

Browns and purples are good colours to complement a fair-skinned, blue-eyed redhead



Photoshop mantra!

Remember the golden rule of image manipulation: 'Keep it subtle'. After we applied the eye make-up we eased back on the strength of the effect so that it complemented our model, rather than dominated the image.



Let's add a little digital eye shadow to complement our model's new look.

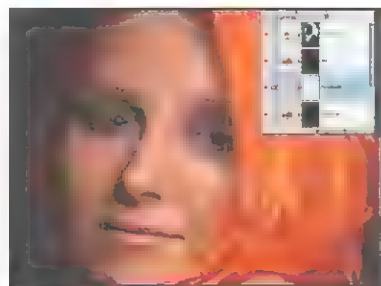
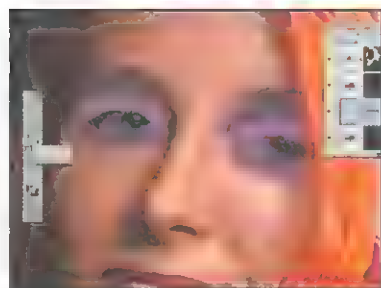
Create a new layer called Eye Shadow. Select the Brush Tool [B]. Go to the Brush Preset picket and select a Spatter tip shape to create a realistic texture for the make-up. Choose a suitable colour from the Colour Picker by clicking on the Foreground Color in the toolbar.

Paint your selected colour on to the new Eye Shadow layer to cover above and below the eyelids. Use a lighter version of the eye shadow colour on the upper eyelids and a darker version of the colour just below the brow bone. Click on the Foreground Color icon to open the Color Picker, so you can easily modify your colours.



Use a stylus

The best way to apply a soft brush to the layer mask in step 4 is to use a pressure-sensitive stylus. Click on the Brushes palette shortcut (at the top-right of the options bar) and make sure that the Opacity Jitter is set to Pen Pressure in the Other Dynamics section.

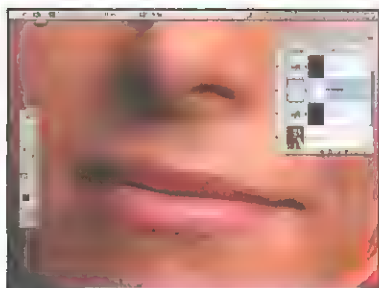


Don't worry that the make-up looks too 'over the top,' as we'll fix that in the next step. Use the Smudge Tool ([Shift]+[R]) to blend the darker and lighter colours together. Use the Blur Tool [R] to mix the colours together a bit more to soften the overall look of the digital eye shadow. You'll find a pressure-sensitive stylus is very handy when performing this type of task.

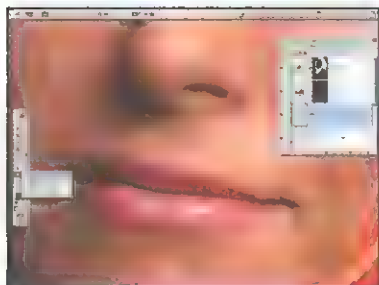
To blend the eye shadow convincingly with the model's skin, change the Eye Shadow layer's blending mode to Multiply. Now you can see the underlying skin tone and texture. Reduce the opacity of the Eye Shadow layer to 40%. As a final touch add a layer mask, and use a soft black brush to gently fade the edges of the eye shadow to blend them more subtly with the surrounding skin.

Lip enhancement

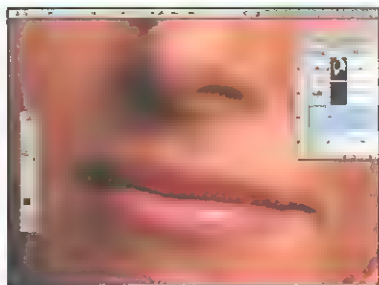
Next we'll give our model slightly fuller lips, before applying some lipstick



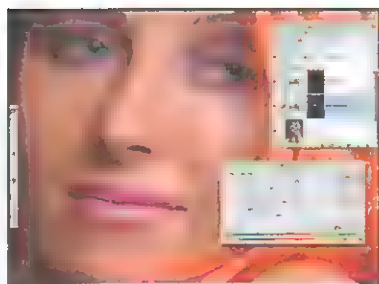
Most people enhance their looks by the way they style their hair, or by applying cosmetics, and growing numbers are experimenting with a little cosmetic surgery to help them improve their looks. We won't modify our subject's body too much in this chapter, but we will allow her to indulge in a little lip enhancement. Select the Pen Tool [P], and set the tool to Paths in the options bar.



Create a new layer called Lips. Use the Pen Tool to place anchor points that define the outline of the enhanced top lip. To keep the lip enhancement realistic, follow the contours of the original top lip outline. Draw smooth curved lines between each anchor point by dragging with the mouse as you place a point. Complete the path by placing the last anchor point on the first.



When you've completed the upper lip selection, right-click to open the pop-up context menu and choose Make Selection. Set the Feather value to 2 pixels. This is a quicker alternative to using the Make Selection option in the Paths palette. Use the Clone Stamp to sample a section from the top of the original lip. Move this section to follow the outline of the extended lip to increase the lip size.



Our model is wearing a subtle pink lipstick, but, now that the makeover has transformed her into a striking green-eyed redhead, we can draw attention to her lips by changing their colour to something more vivid. Merge the cloned lip with the model's layer. Draw a path around the lips, and use a Hue/Saturation adjustment layer to colour her new lips to match the eye shadow.



Hide and seek

When using the Clone Stamp Tool to work inside a selected area, such as in step 3 here, you can keep the 'marching ants' that indicate the selected area active but hidden by pressing [Control]+[H]. This allows you to see how effectively your cloned pixels merge in with their new neighbours.



Credit where it's due

Our makeover model was photographed by Australian photographer Leah-Anne Thompson. Many thanks to her for letting us use the image in this walkthrough. You can check out more of Leah-Anne's striking portraits at www.istockphoto.com

Change the background

Let's place our model in a more interesting setting and create a depth of field effect



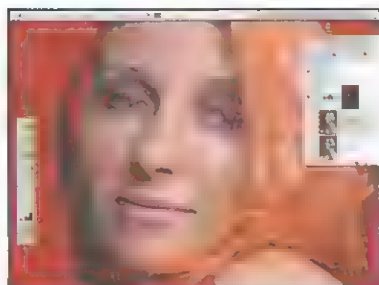
Blur those hairs

Once you've removed the black background by deleting or masking it, you might find some of the sticking-out hair strands are a little too jagged and hard. If you used a layer mask to hide the black, apply the Blur Tool to the strands on the mask to soften them. Alternatively, apply the Blur Tool directly to the hairs on the layer.



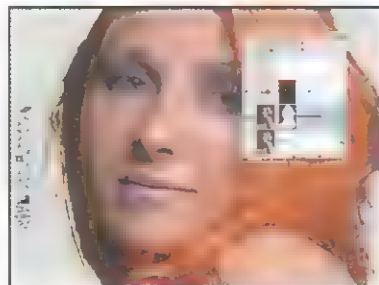
ProjectBackground.jpg

Send your cover girl to a more exotic location for her photo shoot using this image of the Coliseum in Rome as a backdrop.

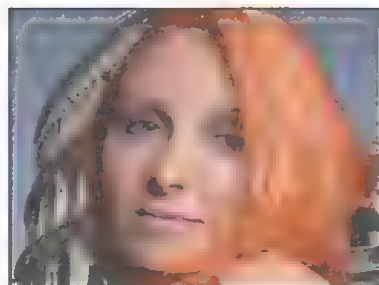


Select the Magic Wand [W] from the toolbox and set it to a Tolerance of 28.

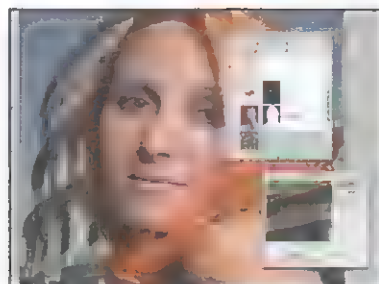
Click to select the black background. Go to Select > Similar to select all the black. This will also select parts of the model's face that we want to keep, so hit [Q] to go to Quick Mask editing mode. Use a soft white brush to remove any red areas, such as inside the girl's eyes, so that these areas aren't selected.



When only the black surroundings are selected press [Q] to return to Standard editing mode. Select the girl's layer in the Layers palette. You could now use Edit > Cut to remove the black background. Alternatively go to Select > Inverse, then click on the Add a mask icon in the Layers palette. This will create a mask that hides the black without permanently erasing it.



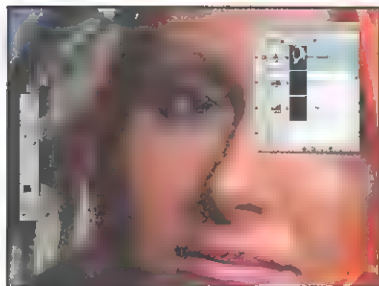
Now we'll place our studio-shot model into her background. To stop the background from competing with her we'll fake a depth of field effect by blurring it. Open the file ProjectBackground.jpg from the cover CD. Drag the Coliseum thumbnail from the Layers palette on to the main project to add it to its own layer. Place it behind the model, and scale it to fit.



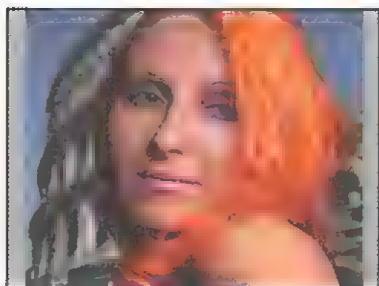
The lighting in the Coliseum shot doesn't quite match the lighting of the model. We could flip the background, but the curve of the building leads the eye to the girl, and the blue sky contrasts with the red hair, balancing the image. To disguise the lighting change and make the background less competitive, apply a Gaussian Blur filter to it. A blur value of 7 should do the trick.

Colour temperature

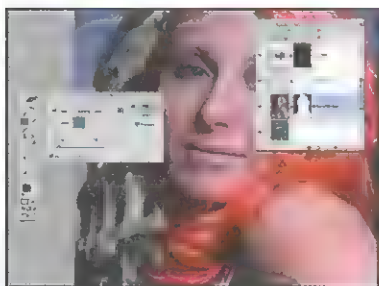
We need to balance the colours between the studio-shot model and her outdoor setting



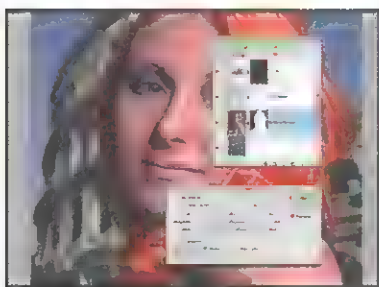
Now that you've blurred the background, you may see areas of colour that need to be removed from the Color Balance adjustment layer. Select a soft black brush from the toolbar. Click on the Color Balance adjustment layer in the Layers palette to select it, then erase any unwanted sections of red by painting them out in the main project work area.



The girl was shot indoors with studio lights. This gives her layer a warm colour temperature. The background was shot in Rome in daylight, giving the background layer a cooler colour temperature (see page 54 for more information on colour temperature). We need to adjust one of the layers to bring its colour temperature in line with the other.



It makes sense to adjust the girl's colour temperature, as she's supposed to be on location in Rome in daylight. There are several ways to adjust the colour balance to cool down the warm shot. We'll use a CS technique in this step, then move on to a version 7 alternative. Go to Image > Adjustments > Photo Filter. Select Cooling Filter 82. Reduce the Density of the filter to 14%



Photoshop 7 users can sort out their colour temperatures by going to Image > Adjustments > Color Balance. Drag the slider towards the blue to cool down the warm studio-shot layer to make it match the backdrop. Adjust the colour balance of the Shadows, Midtones and Highlights separately for greater control over the layer's final look. Keep the Preserve Luminosity box ticked.



Under pressure

When painting-out unwanted strands of red on the Color Balance adjustment layer, we strongly recommend using a pressure-sensitive pen. This will make the job of hiding any unwanted red colour much easier as you paint between the ever-changing strands of hair, since you can vary the stylus pressure to change the size of the brush tip.



CS or version 7?

We've looked at the new Photo Filters that CS users can call on to quickly warm up or cool down an image's colour temperature. CS users can also stick to using the traditional Color Balance menu that they used in version 7.

Healthy glow

Our makeover is almost complete. Now we'll add a soft glow to further flatter our model



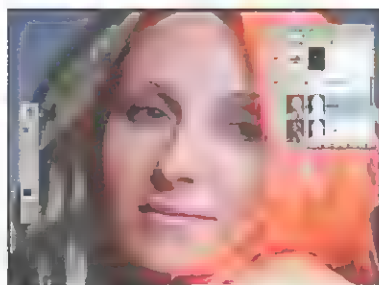
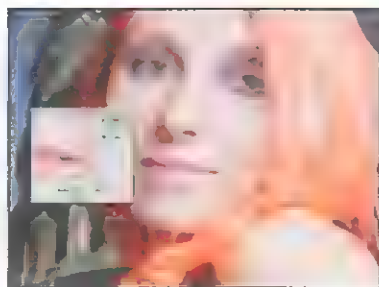
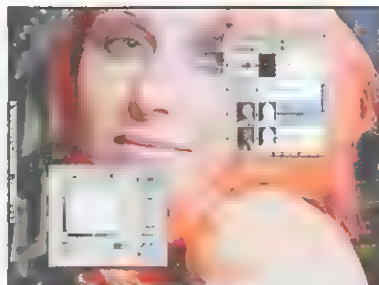
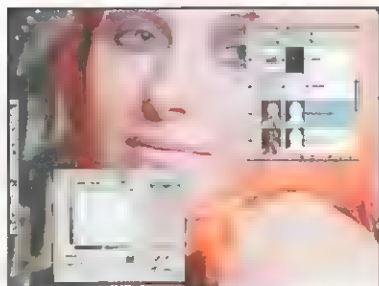
Lighting

The Pro Mist effect won't work on every portrait. You need an image with a bit of contrast between light and shade. This studio shot had a soft key light illuminating the model from the right, causing highlights on the lips and eyes while creating a little shadow definition in the hair and skin on the left of the face.



Project01.mov – Project05.mov

For a closer look at the various portrait enhancing techniques used in this chapter, check out the training movies on the cover CD. These movies will take you step-by-step through our cover girl makeover.



As we saw in Chapter 1, professional photographers sometimes add a Pro Mist filter to the camera's lens to soften the image. This filter maintains contrast, but causes the subject's highlights to glow. It's also good for smoothing the skin's texture. We can apply this effect in Photoshop. A subtle glow will suit the romantic Roman setting and help to enhance our cover girl's overall look.

Duplicate the girl's layer by dragging the thumbnail on to the Create a new layer icon in the Layers palette. Select the copied layer. From the main menu choose Image > Adjustments > Curves. Click and drag upwards on the curve until the Input channel is set to around 44 and the Output channel is set to 94. This increases the highlight brightness levels dramatically. Click OK.

Go to the main menu bar and choose Filter > Blur > Gaussian Blur. Select a high blur value of around 7 pixels. Don't worry about the blur looking too strong, as you're going to restore the image's detail in the next step. You're only interested in the way the blur filter affects the image's highlights. When you're happy with the amount of blur, click OK.

Now blend the blurred and sharp layers together. Change the blurred layer's blending mode to Hard Light, so that more details show through from the original layer beneath. This preserves the blurred highlights, but allows details such as the eyes to show though. Reduce the opacity of the blurred layer so that you get soft glowing highlights and more sharp detail from the original layer.

A whole new look

Let's apply some fine tuning to polish-up those pixels and create the perfect portrait

In this final chapter we've combined many of the tips, tricks and techniques that we've covered in this Focus Guide to give a portrait a complete digital makeover. We've changed our model's hair colour, given her more luscious lips, faked the effect of tinted contact lenses and added the digital equivalent of a Pro Mist filter to give our model's skin a flattering glow. We've altered almost every aspect of our project image to demonstrate the amazing pixel-shifting powers of Photoshop, so, now that you're familiar with all



Here's the original unedited image, so that you can compare the raw studio shot with the final Photoshop makeover below

the tools and techniques at your disposal, you can start applying them to your own portraits.



FinalProject.psd

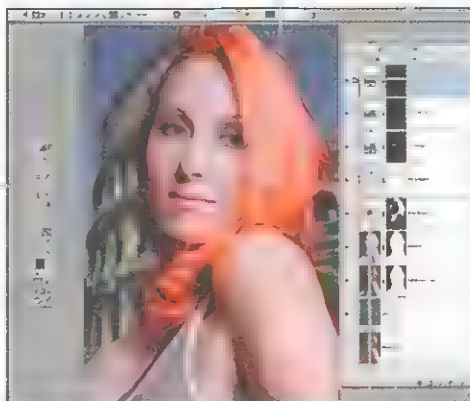
We've placed the layered final project on the cover CD so that you can see more clearly what effect each layer has on the original image. Experiment by turning the various layers on and off, to see how they affect the source image.

FINISHING TOUCHES

If you haven't used layer masks, use a soft Erase Tool to gently reduce any jagged pixels around the hairline.

Take a soft-tipped black brush, and use it to tidy up any rough edges.

When softening the edges around the hair, don't forget to tidy up the equivalent sections of the adjustment layer using a black brush.



Reduce the opacity of the eye colour adjustment layers for a more realistic eye colour. Less is more!

Because you've created adjustment layers you can easily re-adjust things such as hair and eye colour to suit different projects.

Spray the black brush on to the image's layer masks to reduce the sharp, frizzy hair edges caused by the Magic Wand selection.

On your CD-ROM

Here's how to get the most from the disc that accompanies your Focus Guide

To access the wealth of resources and software on your disc, including the full version of Photomatix Light, first insert the disc into your CD drive. Whether you're using a Mac or a Windows PC, the disc will work equally well. If the disc interface doesn't run automatically, look at the facing page to find out how to start your installation manually.

Before you go on

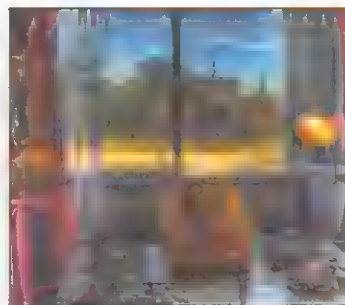
The first item that should appear on your screen is the disclaimer

window; here you'll need to click on 'I Accept'. Please remember that this disc has been scanned and tested at all stages of production, but – as with all new software – we still recommend that you run a virus checker before use. We also recommend you have an up-to-date backup of your hard disk before using this disc. Future Publishing does not accept responsibility for any disruption, damage and/or loss to your data or computer system that may occur while using this disc, or the data and programs on it. Please

PHOTOMATIX LIGHT

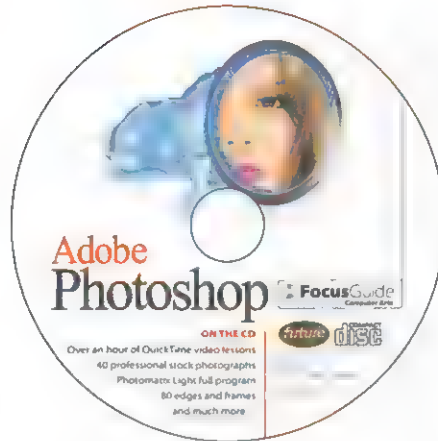
Rescue detail in both shadows and highlights

Previously sold for \$35, Photomatix Light is an ideal utility for extending the dynamic range of your photographs. This post-production software is designed to solve the problem of blown-out highlights and loss of contrast in shadows. Photomatix blends two or more images taken under different exposures. The result is a high-dynamic-range image that you can display on monitors or output on printers while preserving the details of the original scene in highlights and shadows. If you want more, a demo of the latest version is also included on the CD, along with information on how Adobe Photoshop Focus Guide readers can obtain a special discount.



Photomatix Light enables you to improve underexposed or overexposed images

www.multimediaphoto.com/photomatix



consult your network administrator before attempting to install any software on a networked PC.

Installation

Once your CD interface has loaded, you can access any of the files, software and other resources included directly from your CD. Simply click on the animated 'Click' link and choose the section that you're interested in from the menu. The video tutorials require the latest QuickTime Player, from www.apple.com/quicktime/download.

If you have a query about your disc, email our support team at support@futurenet.co.uk for help. If you want to talk to a member of the team, call 01225 822743. Note that we can only provide basic advice on using the disc interface and installing the supplied software. We cannot give in-depth help on specific programs, or on your particular system configuration.



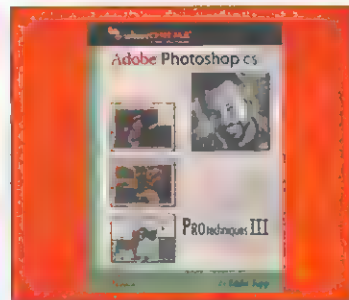
Starting your installation manually

PC users: click on the Windows Start button and click Run. Then click Browse and go to the CD directory in My Computer. Look for a file called PFGi.exe and double-click it. Then click OK in the Run dialogue, and the CD should then load up.
Mac users: Double-click the disc icon, then double-click StartMAC or StartOSX, depending on which OS you're using.

SOFTWARE CINEMA VIDEO TRAINING

Improve the look of your portrait photos

In addition to our regular video tutorials from George Cairns, we're bringing you a portrait special. On the CD you'll find the full version of Pro Techniques III by Eddie Tapp, which is currently retailing for \$49.00 on the Software Cinema website. The training consists of a number of proven procedures for portrait and illustration photographers. The tutorials include how to create a dream glow on a subject, how to utilise layer mask lighting, how to use the Liquify tool and much more. QuickTime is required to view the videos; if you don't have the latest version you can download it from www.quicktime.com/download.



Bonus video training in portrait techniques is provided by Eddie Tapp and Software Cinema

www.software-cinema.com

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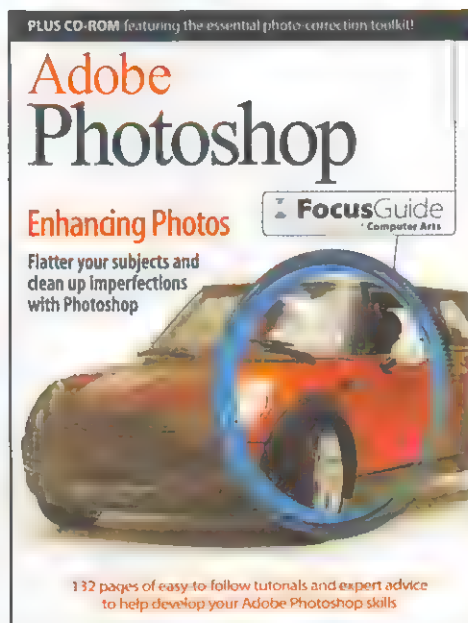
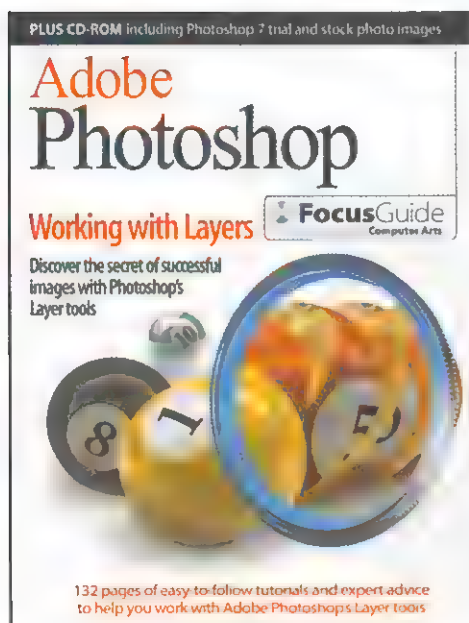
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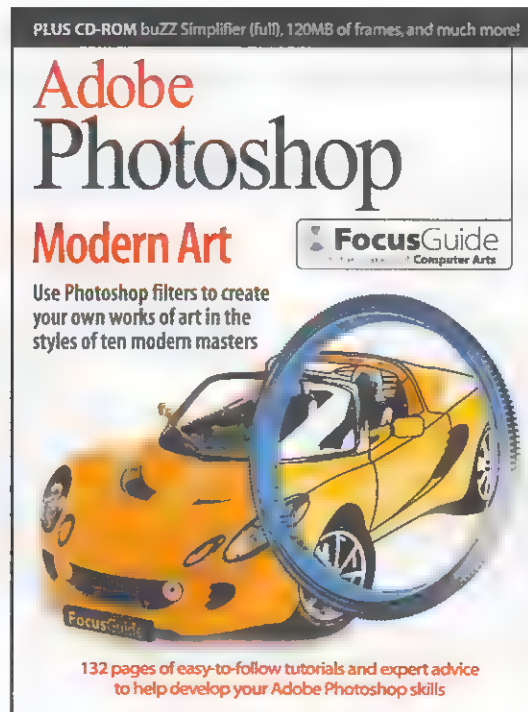
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Glossary

We always try to cut out the jargon, but it helps to add a few words of Photoshop-speak to your vocabulary...

Anti-aliasing

Moving pixels around can cause undesirable jagged edges to appear, where edited pixels have not blended smoothly together. Anti-aliasing refers to the process of smoothing out these jagged edges for a more natural look.

Blending modes

Blending modes are used to determine how the pixels in a layer are blended with underlying pixels on other layers. By applying specific blending modes to individual layers, you can create a wide variety of effects.

Brushes

Brushes enable you to paint on Photoshop images with colour, other bits of images and predefined patterns. They mimic real brushes in that you can alter their size, hardness and texture in order to achieve the effect you want.

Calibration

The process of adjusting a device to bring its behaviour into line with a known specification, helping to reproduce colours accurately. For example, colour monitors are calibrated to a specific colour temperature, gamma, and black-and-white luminance.

Colour channels

There are three or more colour channels in all full-colour images, depending on which colour mode you're using. For example, RGB mode contains red, green and blue channels, while CMYK mode contains cyan, magenta, yellow and black channels. Photoshop enables you to alter each channel independently.

Filters

A filter is a preset tool within Photoshop, which applies an effect to an image (or a selection within the image). Some filters apply their effect in one click, while others offer more complex settings. Filter categories include Sharpen, Blur, Artistic and Stylize. Each of these offer further options via fly-out menus. For a complete list, click in the Filter menu.

Gamut

The range of colour that a device (such as a printer) can produce, or the range of colour that a colour model can represent. If a colour is said to be 'out of gamut', it will not be reproduced accurately by the printing process or other intended destination.

.GIF (or .gif)

A type of image file format best suited to producing simple images for the web. Examples include logos, banners, buttons and anything made up of only a few flat colours.

Greyscale

An image is greyscale if it contains no colour information. Using Photoshop you can transform a colour image into black-and-white, with many gradations of grey, in a single channel. This is known as a greyscale image.

.JPG (or .jpeg)

A type of image file format that gives a desirable combination of small file size and good-quality photo reproduction. It's commonly used in digital cameras to store the images that you take. The small file sizes also make it ideal for the web.

Layers

Layers containing effects or elements of images can be stacked on top of the original image layer (the background) in order to change the appearance of the image. Layers do not directly affect the layers beneath them, just as a blurry piece of glass placed over a photograph does not actually affect the photograph; in both cases, it's the appearance that has been changed, with the original image left unaltered.

Marquee

The flashing dotted outline that surrounds a selection. You'll also see it referred to in some places as 'marching ants'.

Rasterize

When you 'rasterize' a graphical element, you convert it from a vector to a pixel-based image. It will no longer be scalable like a vector, but can still be edited, like other images in Photoshop.

Resolution

A measure of how many pixels make up an image. A resolution of 300dpi (dots per inch) is recognised as the minimum if you're intending to print your images. 72dpi is sufficient for images intended for the web.

Selection

Any part of an image which you select with Photoshop's tools, usually indicated by a marquee around it. Making selections enables you to work on parts of an image, or remove them, without affecting the rest of the image.

Thumbnail

A small, 'thumbnail-sized' version of an image. You'll find

them in folders of images and in Photoshop's File Browser. Because they're smaller than a full-size image they're fast to load, and you can browse through them more quickly, which makes finding the file you're after much easier.

Pixel

An abbreviation for 'picture element', it's essentially a tiny dot of colour on screen. Most images are made up of millions of pixels, which combine to make an image look seamless. Zoom-in very close to an image, however, or enlarge it to a high degree, and you can clearly see these individual pixels.

PSD

Photoshop's own file format, which preserves elements such as layers and channels. If you're editing an image file, it's sensible to save it as a PSD, in order for the changes you've made to remain editable when you next open it.

Spot colour

A method of specifying and printing colours in which each colour is printed with its own separate ink. In contrast, process colour printing uses four inks (cyan, magenta, yellow and black) to produce all other colours.

Tool options bar

When a tool is selected, the corresponding tool options bar automatically appears along the top of the Photoshop window, giving you access to various options relating specifically to that tool. These often include effects such as Anti-aliasing and Feathering.

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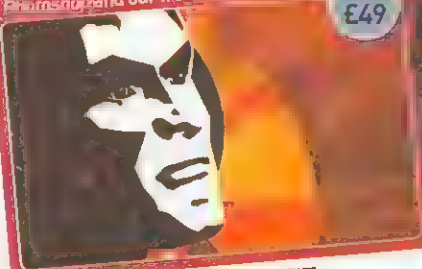
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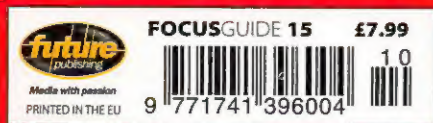
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